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125 YEARS
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July 31, 2012

VIA Hand Delivery

Bridget C. Bohac, Chief Clerk
Texas Commission on Environmental Quality
12100 Park 35 Circle
Building F, 1st Floor
Austin, Texas 78753

RE: Cottonwood Energy Company LP- Appeal of July 10, 2012 Negative Use Determinations

Dear Ms. Bohac:

We are in receipt of the Executive Director's letters dated July 10, 2012 notifying the Applicant of a negative use determination (the "***Determination***") on its applications; No. 15505, No. 16412, No. 16411 and No. 16410 (the "***Application***")

I. Procedures For Appeal

Applicant disagrees with the Determination and pursuant to 30 TAC 17.25 hereby provides:

(1) the name, address, and daytime telephone number of the person filing the appeal is:

Mike Nasi
Jackson Walker L.L.P.
100 Congress Ave., Ste. 1100
Austin, Texas 78701
512-236-2216

As legal counsel to:
Cottonwood Energy Company LP

(2) the name and address of the entity to which the use determination was issued:

Cottonwood Energy Company LP
Cottonwood Energy Center
976 County Road 4213
Deweyville, Texas (Newton County)

(3) the use determination application number for the Application was:

No. 15505, No. 16412, No. 16411, No. 16410

(4) request Commission consideration of the use determination:

Applicant hereby requests the Commission to hear and consider the merits of the Application and reach a determination that a negative use determination is not appropriate and the matter should be remanded back to the Executive Director with instructions to revisit the pollution control aspects of the subject property.

(5) The basis for the appeal is set forth in full in the attached brief.

Sincerely,

for Michael J. Nasi, Counsel for Cottonwood Energy Company LP

TCEQ DOCKET NO. _____

APPEAL BY Cottonwood Energy Company LP	§	**TEXAS COMMISSION**
	§	
	§	**ON**
NEGATIVE USE DETERMINATION ISSUED TO Cottonwood Energy Company LP	§	**ENVIRONMENTAL QUALITY**

APPEAL OF NEGATIVE USE DETERMINATION ISSUED TO COTTONWOOD ENERGY COMPABY LP

Cottonwood Energy Company LP ("***Applicant***" or "***Cottonwood***") files this appeal of the negative use determinations issued by the Executive Director on July 10, 2012. For the reasons articulated below, the Applicant respectfully requests that the Commission sustain the Applicant's appeal of the negative use determinations and remand the matter to the Executive Director with instructions to revisit the pollution control aspects of the subject property.

Part I of this brief provides a brief background of the Pollution Control Property Program; Part II describes the procedural background of the application; Part III-VI detail the Applicant's argument why the negative use determination is a misapplication of Texas law, is based on policy concerns outside of the Agency's purview, and is founded on a defective technical evaluation.

Summary of Argument

This is an appeal of a negative use determination. Therefore, quite simply, the only question before the Commission in considering this appeal is not whether an exact percentage is appropriate - the Commissioners need only evaluate whether ***any*** percentage above zero is appropriate. As set forth fully herein, applicable law, prior precedent, and the record in this case demand that, at a minimum, a number above zero be used and a positive use determination be issued. Thus, this appeal should be granted and this matter should be remanded back to the Executive Director for a determination that the property in question is eligible for a positive use determination.

I. Program Background

On November 2, 1993, Texans approved Proposition 2 amending the Texas Constitution to provide tax relief for pollution control property. This amendment added § 1-1 to the Texas Constitution, Article VIII, which states:

> (a) The legislature by general law may exempt from ad valorem taxation all or part of real and personal property used, constructed,

> acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by any environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water, or land pollution.
>
> (b) This section applies to real and personal property used as a facility, device, or method for the control of air, water, or land pollution that would otherwise be taxable for the first time on or after January 1, 1994.

In response to the constitutional amendment, the Texas Legislature added Texas Tax Code, § 11.31, Pollution Control Property ("***§11.31***"). The statute establishes a process where applicants submit Applications for Use Determination to the Executive Director of the TCEQ to determine whether the property is used wholly or in part for pollution control.[1] The Executive Director's role is limited by § 11.31 to the specific task of conducting a technical evaluation to determine whether the equipment is used wholly or partly for the control of air, water, or land pollution,[2] and does not include any evaluation of the merit of the tax exemption itself or tax policy implications of granting positive or negative use determinations.

The tax appraisal district where the Pollution Control Property will be installed/constructed is the entity charged with actually granting the tax exemption. If an applicant obtains a positive use determination from the Executive Director, the applicant must then submit another application with the local appraisal district to receive the tax exemption for the pollution control property.

In 2001, the Legislature passed House Bill 3121, which amended §11.31. These amendments included providing a process for appealing the Executive Director's use determinations.[3] House Bill 3121 also required the Commission to adopt rules that establish specific standards for the review of applications that ensure determinations are equal and uniform,[4] and to adopt rules to distinguish the proportion of property that is used to control pollution from the proportion that is used to produce goods or services.[5]

In 2007, § 11.31 was amended again with the passage of House Bill 3732, which required the Commission to adopt a list of equipment that is considered pollution control property, including the equipment listed in § 11.31(k). In adopting rules for the implementation of House Bill 3732, the TCEQ created a specific review process for those applications applying for the categories of listed equipment. For these applications, the Executive Director must determine

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[1] TEX. TAX CODE § 11.31(c) and (d).

[2] TEX. TAX CODE § 11.31(c).

[3] TEX. TAX CODE § 11.31(e).

[4] TEX. TAX CODE § 11.31(g)(1) and (g)(2).

[5] TEX. TAX CODE § 11.31(g)(3).

the proportion of the equipment used for pollution control and the proportion that is used for production. The application that is the subject of this appeal is a Tier III application.

II. Procedural Background

On July 5, 2011, the Applicant filed a Tier III Application for Use Determination for Pollution Control Property with the Executive Director for one Heat Recovery Steam Generator ("***HRSG***") and dedicated ancillary systems at the Cottonwood Energy Center (See Attachment A). The Applicant then submitted additional applications for three other HRSG units at the Cottonwood Energy Center on December 2, 2011 (See Attachments B, C and D). The Executive Director conducted a technical review of each of these four applications and on July 10, 2012 issued a negative use determination for the four HRSGs, stating that "[h]eat recovery steam generators and associated dedicated ancillary systems are used solely for production; therefore, are not eligible for a positive use determination." (See Attachments E, F, G and H).

The Executive Director has received approximately thirty-eight similar applications for HRSGs and associated equipment installed at combined-cycle electric generation facilities. The Executive Director issued 100 percent positive use determinations for twenty-six of the HRSG applications, leaving twelve applications pending. Six of the positive use determinations were appealed by local taxing units. The application at issue in this appeal was one of applications left pending by the Executive Director. On July 10, 2012, the Executive Director issued negative used determinations for all of the pending HRSG applications as well as the six applications that were appealed. The negative use determination was issued to Cottonwood despite its applications being substantively identical to the applications that received 100 percent positive use determinations.

III. Executive Director Failed to Comply with the Timeline in Texas Tax Code § 11.31(m) for Review of Application

In 2007, the Texas Legislature passed House Bill 3732, which amended Texas tax Code § 11.31. Specifically, House Bill 3732 added subsections (k) and (m). Subsections 11.31(k) and (m) direct that the Commission "shall determine" that "heat recovery steam generators" are "used wholly or partly" as qualifying pollution control property. There is no option under the statute for TCEQ to determine that equipment listed in 11.31(k) is not pollution control equipment. When the Legislature added subsection 11.31(k) in 2007, the purpose was to list equipment that was predetermined to be pollution control equipment and the only evaluation that needed to occur was to determine the percentage of the equipment that qualified as pollution control property. The question is not "whether the equipment is pollution control property", but instead should be "how much is pollution control property."

Furthermore, under Texas Tax Code § 11.31(m), the Executive Director "shall" review applications for equipment listed under § 11.31(k) and make a determination whether the equipment is wholly or partly pollution control property within 30 days. Furthermore, the statute states that the Executive Director "shall" take action on that determination and notify the

applicant and the appraisal district of the determination. Thus, the Executive Director must review and issue a use determination within 30 days for those applications which were submitted after House Bill 3732 became effective, and which include equipment that is listed under Texas tax Code § 11.31(k).

As indicated earlier, the Executive Director received one of Cottonwood's applications on July 5, 2011 and three subsequent applications on December 2, 2011. Despite the statute's clear requirement that the Executive Director act within 30 days on applications for equipment listed under § 11.31(k), in this instance, the Executive Director waited over six months for three of the applications and over a year on the first application after the applications were submitted to make a determination. By failing to act within 30 days, the Executive Director violated the statutory requirements of Texas Tax Code § 11.31(m) and effectively prevented the Applicant from receiving a tax exemption for which it met all of the statutory requirements.

IV. Texas Tax Code Requires Consistency

a) The Executive Director's Use Determination Violates the Equal and Uniform Tax Mandate in Texas Constitution art. VIII, Section 1(a).

In Texas, all taxation must be equal and uniform. Tex. Const. art. VIII, Section 1(a).[6] The Texas Constitution's equal and uniform standard is strikingly incorporated into Section 11.31:

> "(d) The commission shall adopt rules to implement this section. Rules adopted under this section must . . . (2) be sufficiently specific ***to ensure that determinations are equal and uniform*** . . ."

The constitutional mandate requires that a tax must treat taxpayers within the same class alike, and that any classifications must not be unreasonable, arbitrary, or capricious.[7] The standard for determining equal and uniform taxation is a two-part test: "(1) whether the tax's classification is reasonable; and (2) whether, within the class, the legislation ***operates equally***."[8]

A tax cannot satisfy the second prong of the equal and uniform standard unless the value of the tax base is ascertained by the same standard for all taxpayers within each class.[9] ("The standard of uniformity prescribed by the Constitution being the value of property, taxation can not be in the same proportion to the value of the property, unless the value of all property is

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[6] The Article VIII, Section 1 of the Texas Constitution provides: "(a) Taxation shall be equal and uniform. (b) All real property and tangible personal property in this State, unless exempt as required or permitted by this Constitution, whether owned by natural persons or corporations, other than municipal, shall be taxed in proportion to its value, which shall be ascertained as may be provided by law."

[7] *Hurt v. Cooper,* 110 S.W.2d 896, 901 (Tex. 1937).

[8] *R.R. Comm 'n of Tex. v. Channel Indus. Gas,* 775 S.W.2d 503, 507 (Tex. App.—Austin 1989, writ denied) (*emphasis added*).

[9] *Lively v. Missouri, K. & T. Ry.,* 120 S.W. 852, 856 (Tex. 1909).

ascertained by the same standard."). In other words, when taxing value (i.e., the tax base), the Legislature may not say that the same economic value is more for some taxpayers than it is for other taxpayers.

In the instant case the Commission has granted 100 percent exemption for heat recovery steam generator systems that are substantively identical to Applicant's to approximately twenty other taxpayers. There has been no reasoned justification for the distinction based on any alleged differences in design or use or location of the equipment. The negative use determination made against Applicant is arbitrary in that there is no substantive distinction between the use or pollution reducing benefit of the HRSGs and the multiple other applicants whose systems have been granted 100% positive use determinations by the Commission. Such random enforcement causes 11.31 to operate unequally and in direct violation of the equal and uniform tax mandate.

b) The Commission Does Not Have Authority to Make a 100 Percent Negative Use Determination Under Section 11.31 of the Texas Tax Code

Subsections 11.31(k) and (m) direct that the Commission "*shall determine*" that "heat recovery steam generators" and "enhanced steam turbine systems" are "used wholly or partly" as qualifying pollution control property. Tex. Tax Code Section 11.31(k) & (m).

The Determination's negative use finding is facially and patently in violation of the Texas Tax Code.

The applications requested a 42.99 percent positive use determination that the Applicant's four HRSGs and associated dedicated ancillary systems were used in accordance with the following statutory standard set forth in Section 11.31[10] of the Texas Tax Code:

> "A person is entitled to an exemption from taxation of all or part of real and personal property that the person owns and that is used ***wholly or partly as a facility, device, or method for the control of air, water, or land pollution.***"
>
> In this section, "facility, device, or method for the control of air, water, or land pollution" means land that is acquired after January 1, 1994, or any structure, building, installation, excavation, machinery, equipment, or device, and any attachment or addition to or reconstruction, replacement, or improvement of that property, that is used, constructed, acquired, or installed ***wholly or partly to***

[10] Section 11.31 of the Texas Tax Code is authorized by Article VIII, Section l-1 of the Texas Constitution, which provides: "(a) The legislature by general law may exempt from ad valorem taxation all or part of real and personal property used, constructed, acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by any environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water, or land pollution. (b) This section applies to real and personal property used as a facility, device, or method for the control of air, water, or land pollution that would otherwise be taxable for the first time on or after January 1, 1994. . . . (Added Nov. 2, 1993.)"

> ***meet or exceed rules or regulations adopted by any environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water, or land pollution.***"

The Application and Attachment I hereto establish the factual basis that the HRSGs qualify as a ***device, or method for the control of pollution.***

Despite the clear factual record that HRSGs control pollution, the Executive Director's determination summarily finds, without explanation or substantive reasoning, that the HRSGs will be subject to a negative use determination because they are "used solely for production." The facts do not support the Determination, and there is no reasonable interpretation of Section 11.31 that would support the Determination.

Section 11.31 must be construed to give effect to the Legislature's intent.[11] An agency or court should first attempt to determine this intent from the actual language used by the Legislature. That is, an agency or court should first look to the plain, ordinary meaning of the statute's words.[12] Most importantly, "[i]f a statute is clear and unambiguous, [the courts] apply its words according to their common meaning without resort to rules of construction or extrinsic aids."[13] This is true even when the agency charged with enforcing the statute seeks to apply a different construction.[14]

Further, Texas Attorney General Opinion JC-0372 (2001) has expressly opined to the Chair of the Texas Natural Resource Conservation Commission that "methods of production" can and do qualify as exempt pollution control property:

> "Section 11.31 is ***broadly written, and we believe its plain meaning is clear***. It embraces any property, real or personal, "that is used wholly or partly as a facility, device, or method for the control of air, water or land pollution. . . ." (*emphasis added*).
>
> "Next, we consider whether section 11.31 excludes from its scope pollution-reducing ***production*** equipment. Significantly, the statute applies to property used "wholly or partly" for pollution control. See id. § 11.31(a). To qualify for the exemption, property must be used "wholly or partly" to meet or exceed environmental rules. See id. § 11.31(b). The term "wholly" clearly refers to property that is used only for pollution control, such as an add-on device. See

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[11] *See* TEX. GOV'T CODE § 312.005; *Gilbert v. El Paso County Hosp. Dist.*, 38 S.W.3d 85 (Tex. 2001).

[12] *See* TEX. GOV'T CODE § 312.002(a); *Am. Home Prods. Corp. v. Clark*, 38 S.W.3d 92, 95-96 (Tex. 2000); *Crimmins v. Lowry*, 691 S.W.2d 582, 584 (Tex. 1985).

[13] *In Re Nash*, 220 S.W.3d 914, 917 (Tex. 2007) (emphasis added).

[14] *See Pretzer v. Motor Vehicle Bd.*, 138 S.W.3d 908, 914-15 (Tex. 2004); *Barchus v. State Farm Fire & Cas. Co.*, 167 S.W.3d 575, 578 (Tex. App.—Houston [14th Dist.] 2005, pet denied).

> Merriam Webster's Collegiate Dictionary 1351 (10th ed. 1993) (defining "wholly" to mean "to the full or entire extent: ... to the exclusion of other things"). ***The term "partly," however, embraces property that has only some pollution-control use***. See id. at 848 (defining "partly" to mean "in some measure or degree"). This broad formulation clearly embraces more than just add-on devices. ***Furthermore, that statute clearly embraces not only "facilities" and "devices" but also "methods" that prevent, monitor, control, or reduce pollution. "Methods" is an extremely broad term that clearly embraces means of production designed, at least in part, to reduce pollution. See id. at 732 (defining "method" to include "a way, technique, or process of or for doing something").***

The HRSGs and associated dedicated ancillary systems are clearly used to comply with environmental laws and to control pollution and qualify for exemption under any valid rule or convention of statutory construction.

c) Failure To Comply With Commission Rules and the Texas Administrative Procedures Act.

The Commission cannot arbitrarily and capriciously create and enforce a new internally derived formula for heat recovery steam generators resulting in a drastic increase in the amount of property taxes assessed against Applicant, without, at the very least,[15] adhering to the Texas Administrative Procedure Act (the "APA").

In brief, the APA requires state agencies to follow certain formal procedures before adopting and applying any "rule."[16] Among other requirements, the APA requires state agencies to provide notice of any intent to promulgate a new rule, to publish the contemplated new rule, and to invite public comment with respect to the new rule.[17] As the Texas Supreme Court explained: "In this way, the APA assures that the public and affected persons are heard on matters that affect them and receive notice of new rules."[18]

In addition to the APA requirements regarding the procedures that must be applied by state agencies when adopting and applying any "rule," Texas courts frequently require that an agency explain its reasoning when it "appears to the reviewing court that an agency has departed from its earlier administrative policy or there exists an apparent inconsistency in agency

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[15] And subject to the statutory arguments set forth below.

[16] The APA defines the term "rule" to mean "a state agency statement of general applicability that... implements, interprets, or prescribes law or policy." Tex. Gov't Code § 2001.003(6).

[17] *See Rodriguez v. Service Lloyds Ins. Co.*, 997 S.W.2d 248, 255 (Tex. 1999), *reh'g of cause overruled* (Sept. 9, 1999); *see also* Tex. Gov't Code § 2001.004(2) (additionally requiring agencies to "index, cross-index to statute, and make available for public inspection all rules and other written statements of policy or interpretations that are prepared, adopted, or used by the agency in discharging its functions").

[18] *Id.*

determinations." By issuing a 100 percent use determination and ultimately issuing a negative use determination, the TCEQ Executive Director's staff has departed from its earlier policy with regard to the evaluation of HRSGs. Furthermore, as explained earlier, TCEQ has issued 100 percent use determinations for other HRSGs, but issued negative use determinations for those applications that were appealed. In doing so, the TCEQ provided a one sentence explanation stating, "[HRSGs] are used solely for production and, therefore, are not eligible for a positive use determination."

In this case the Commission clearly failed to follow the procedures of the Texas APA in reaching and applying its interpretation of Section 11.31(k) and (m) of the Texas Tax Code. Because the Commission failed to promulgate any rule or other formal statement expressing its new interpretation of Section 11.31(k) and (m) of the Texas Tax Code, its interpretation violates the APA and must be disregarded.

Further, the Determination appears to represent a sea change in the Commission's interpretation of Section 11.31 without any change to its Section 11.31 rules. The Commission's attempt to make a material change in policy retroactively without compliance with the APA is an invalid rule under the APA under the analysis in *El Paso Hospital District v. Texas Health and Human Services Commission*, 247 S.W.3d 709 (Tex. 2008).[19]

In *El Paso Hospital District,* the Texas Health and Human Services Commission ("HHSC") adopted a regulation that established a "base year" for gathering claims data to be used in setting certain Medicaid hospital payment rates. Several hospitals sought a declaratory judgment that the cutoff rule was invalid under the APA, because HHSC did not adopt the rule in accordance with the APA. HHSC argued that the cutoff date was not a rule itself but rather an interpretation of a rule. The Texas Supreme Court held that the agency-applied cutoff date was an invalid rule because the agency did not follow the proper rule-making procedures contained in the APA. The Texas Supreme Court stated:

> "HHSC argues that it complied with these statutes, and that the February 28 cutoff is not a rule itself, but rather its interpretation of the base-year rule. The Hospitals disagree, arguing the February 28 cutoff falls squarely within the APA's definition of a rule. We agree with the Hospitals. Under the APA, a rule: (1) is an agency statement of general applicability that either "implements, interprets, or prescribes law or policy" or describes [HHSC'S] "procedure or practice requirements;" (2) "includes the amendment or repeal of a prior rule;" and (3) "does not include a statement regarding only the internal management or organization of a state agency and not affecting private rights or procedures." TEX. GOV'T CODE §2001.003(6)(A)-(C). *El Paso Hospital District* at 714.

[19] *El Paso Hospital District v. Texas Health and Human Services Commission*, 247 S.W.3d 709 (Tex. 2008).

The Commission's new internal formula or reasoning that resulted in the Determination interprets or prescribes law or policy and amends or repeals positions previously applied by the Commission.

The violation of APA requirements is especially egregious in this case given that Section 11.31(l) of the Texas Tax code mandates that the TCEQ, "by rule shall update the list adopted under Subsection (k)" and then makes clear that "[a]n item may be removed from the list if the commission finds compelling evidence to support the conclusion that the time does not provide pollution control benefits." No APA rulemaking procedure has been followed to remove HRSGS or enhanced steam turbine systems from Section 11.31(k) and it is inconceivable how the TCEQ could find that "compelling evidence exists to support the conclusion that [HRSGs] do not provide pollution control benefits."

V. The Record Supports a Positive Use Determination and Clearly Contradicts a Negative Use Determination

a) Pollution Control Property

The only question before the Commission in considering this appeal is not whether an exact percentage is appropriate - the Commissioners need only evaluate whether ***any*** percentage above zero is appropriate. The Applicant's HRSGs can be defined as pollution control property based on the prevention of NOx emissions from natural gas use efficiencies. Under Tax Code § 11.31(a), "[a] person is entitled to an exemption from taxation of all or part of real and personal property that the person owns and that is used wholly or partly as a facility, device, or method for the control of air, water, or land pollution." (emphasis added). The statute defines "a facility, device, or method for the control of air, water, or land pollution" as:

> "[a] structure, building, installation excavation, machinery, equipment or device, and any attachment or addition to or reconstruction, replacement or improvement of that property, that is used, constructed, acquired, or installed wholly or partly to meet or exceed rules or regulations adopted by any environmental protection agency of the United States, this state, or a political subdivision of this state for the prevention, monitoring, control, or reduction of air, water, or land pollution."

Thus to qualify as pollution control property, the equipment or structure must control pollution and must meet or exceed applicable environmental protection regulations.

b) Method of Pollution Control

The use of otherwise wasted heat in the turbine exhaust gas within the HRSG results in higher plant thermal efficiency (net power output of the plant divided by the heating value of the fuel), compared to other power generation technologies. A plant incorporating a combined cycle

design emits less NO_x per pound of fossil fuel combusted due to the incorporation of both the Brayton and Rankine Thermodynamic cycles within plant design operations

Specifically, the equipment's increased thermal efficiency, as compared to a traditional steam boiler unit, reduces the fuel needs for the same power outputs, while emitting no additional air emissions. It is important to note that the lower fuel consumption associated with increased fuel conversion efficiency not only reduces NOx emissions, but also reduces other emissions such as CO_2.

c) HRSGs are Used to Meet Certain New Source Performance Standards for Electric Generating Facilities

As cited in the Application, Title 40 of the Code of Federal Regulations ("***CFR***") subpart 60.44Da establishes New Source Performance Standards ("***NSPS***") for emissions of air contaminants for electric utility steam generating facilities.

Subpart § 60.40Da(e)(1) specifically lists HRSGs as subject to the NSPS requirements in 60.44Da, stating:

> (i.e. heat recovery steam generators used with duct burners) associated with a stationary combustion turbine that are capable of combusting more that 73 MW (250MMBtu/H) heat input of fossil fuel are subject to this subpart.

Therefore, Applicant's four HRSGs are subject to the performance standards for air emissions as established within the Subpart Da. Specifically, they are subject to Section 60.44Da Standards for nitrogen oxides (NO_x) which states:

> Except as provided in paragraph (h) of this section, on and after the date on which the initial performance test is completed or required to be completed...no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility for which construction...commenced before July 10, 1997 any gases that contain NO_x (expressed as NO2) in excess of the applicable emissions limit in paragraphs (a)(1) and (2) of this section.

Furthermore, the Applicant's HRSGs were designed to meet the national primary and secondary ambient air quality standards (***"NAAQS"***) for oxides of nitrogen (with nitrogen dioxide as the indicator) as set forth in 40 CFR § 50.11

Monitoring data from the Barney Davis Power Plant during both pre and post-repowering of that plant confirm the assumptions regarding the air emissions reductions per pound of fossil fuel use. This data is set out in Attachment "I."

VI. TCEQ's Role as a Technical Advisor to the State in Administering the Prop 2 Program Includes Factoring in Ever-Evolving Pollution Control Policies, not Tax Policy

The clear structure and purpose of Section 11.31 of the Texas Tax Code has for nearly two decades been for the TCEQ to serve as the scientific and technical arbiter for determining the types of equipment that qualify as pollution control property. The TCEQ's role has always been to implement an efficient, consistent and scientifically accurate process to determine technologies that meet the statutory definition of pollution control property. Section 11.31 directs the TCEQ to determine whether particular items of property are used for pollution control based on its specialized knowledge and expertise.

As previously noted, the Executive Director had issued 100 percent positive use determinations for twenty-six of the HRSG applications, six of which were appealed by local taxing units. However, the application at issue in this appeal was one the Executive Director left pending for several years before making a final determination. On July 10, 2012, the Executive Director issued negative used determinations for all of the pending HRSG applications as well as the six applications that were appealed. The negative use determination was issued to Cottonwood despite its applications being substantively identical to the applications that received 100 percent positive use determinations.

Conclusion

As noted at the outset of this brief, the question before the Commission in considering this appeal is not whether an exact percentage is appropriate - the Commissioners need only evaluate whether ***any*** percentage above zero is appropriate. As set forth fully above, aplicable law, prior precedent, and the record in this case demand that a positive use determination b issued. Thus, this appeal should be granted and this matter should be remanded back to the Executive Director for a determination that the property in question is eligible for a positive use determination.

Respectfully submitted,

Michael J. Nasi
State Bar No. 00791335
Steve Moore
State Bar No. 14377320
Benjamin Rhem
State Bar No. 24065967

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512-236-2200
512-236-2002 (Facsimile)
mnasi@jw.com

ATTORNEYS FOR
Cottonwood Energy Company LP

CERTIFICATE OF SERVICE

I hereby certify that on the 31st day of July, 2012, a copy of the foregoing was provided by electronic mail or U.S. First Class Mail to the attached mailing list:

for Michael J. Nasi

Mailing List

Daniel Long — *Courtesy Copy via U.S. Mail*
Texas Environmental Law Division MC 173
P. O. Box 13087
Austin, Texas 78711-3087
512/239-0600 FAX 512/239-0606

Susana M. Hildebrand, P.E. — *Courtesy Copy via U.S. Mail*
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Robert Martinez — *Courtesy Copy via U.S. Mail*
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Blas Coy — *Courtesy Copy via U.S. Mail*
TCEQ Office of Public Interest Counsel
MC 103
P. O. Box 13087
Austin, Texas 78711-3087

Attachment A

DUFF&PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

June 30, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is $2,500. Please find enclosed a check for the $2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 1 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 87801

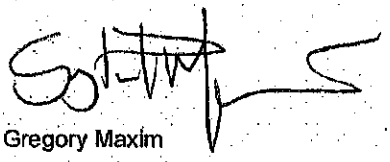
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

T +1 512 671 5580
F +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,



Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?
   Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is '**Yes**', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?

Corporation ☐	Partnership ☐	Utility ☐
Sole Proprietor ☐	Limited Partner ☐	Other: **Limited Liability**

2. Size of Company: Number of Employees

1 to 99 ☒	500 to 999 ☐	2,000 to 4,999 ☐
100 to 499 ☐	1,000 to 1,999 ☐	5,000 or more ☐

3. Business Description: (Briefly describe the type of business or activity at the facility)
   Natural Gas-Fired Electric Power Generation
4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

   Tier I – Fee: $150 ☐ Tier II – Fee: $1,000 ☐ Tier III – Fee: $2,500 ☒

2. Payment Information:

   Check/Money Order/Electronic Payment Receipt Number:
   Payment Type: Check
   Payment Amount: $2,500
   Name on payment: Duff & Phelps
   Total Amount: $2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP
2. Mailing Address: 976 County Road 4213
3. City, State, Zip: Deweyville, TX 77614
4. Customer Number (CN): CN602765687
5. Regulated Entity Number (RN):RN100226109
6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A
7. Is this property/equipment leased from a third party? Yes ☐ No ☒

   If the answer is 'Yes,' please explain: N/A
8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A
2. Mailing Address: N/A
3. City, State, Zip: N/A
4. Customer Number (CN): N/A
5. Regulated Entity Number (RN):N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

   Cottonwood Energy Center
2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2011-48

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:

   Unit 1 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems

2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.

3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐

   If the answer is 'Yes,' describe the marketable product: Electricity

4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 1 HRSG

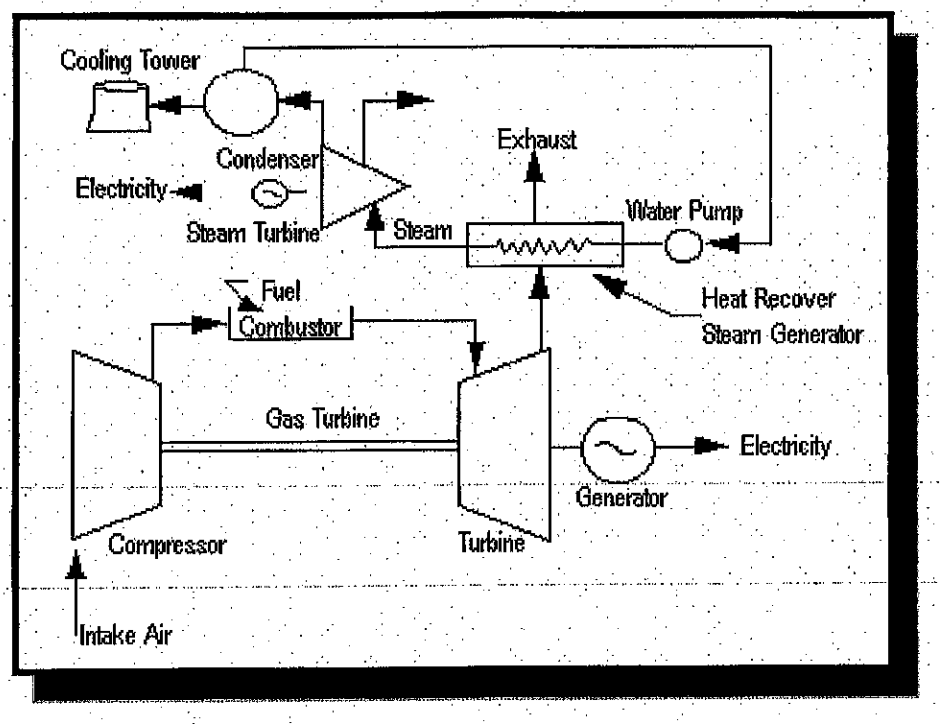
The pollution control property described in this Application is the Unit 1 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 1 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 1 HRSG captures and utilizes the waste heat of combustion from the Unit 1 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 1 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 1 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the CT's alone's use of the fuel. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; and allowing the subject PC Property to appear on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

    The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

    As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

    The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	$ 60,584,465
Property:			
Property:			
		Total:	$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

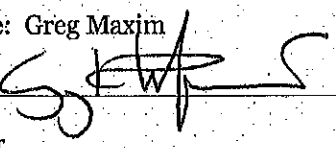
NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim Date: 6/30/2011

Signature: 

Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to $2,000, or a prison term of two to 10 years and a fine of up to $5,000.

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: June 30, 2011
Rev: 7

Source Legend	
C	Calculated Assumption
D&P	D&P VAB Standard/Estimate
CW	Cottonwood Client-Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile

PC Property		Source
PC Property Capital Cost	$ 60,564,405	CW
PC Property Capital Cost ($/kW)	$ 200	C
PC Property Capacity (MW)	292	CW
PC Property Net Annual Generation Capacity (kWh)	806,493,195	C
PC Property Net Annual Generation Capacity (MWh)	806,493	C
Plant Capacity Factor	31.65%	CW
Plant Heat Rate (btu/kWh)	7,503	CW
Plant Heat Rate (MMBTU/MWh)	0.01	C

Capital Cost Old ("CCO")

Comparable Technology Cost	$	-
Comparable Technology	$	-
Design Capacity Factor		0%
Capacity ("MW")		1

Conversion Factors

Hours/Year	8,760
kW/MW	1,000
lb/kg	2.20
w/kw	3,600
btu/mmbtu	1,000,000

Economic Assumptions

		Source
Discount Rate	10.0%	D&P
Periods	40	CW
PC Property Fixed O&M Cost ($/MW-yr)	$ 4.53	CW
Fuel Cost ($/MMBTU)	$ 2.00	HH
PC Property Variable Cost ($/MWh)	$ 0.48	CW
PC Property Variable Cost ($/kWh)	$ 0.00	C
ERC Electricity Pricing ($/MWh)[1]	$ 35.32	ERC
Interest Rate	10%	30 TAC

Levelized Cost of Energy ("LCOE") Model Outputs*

Capital Recovery Factor ("CRF")	10.25%
LCOE ($/MWh)	0.03078

*See Levelized Cost of Energy model in Attachment A

[1] Three-year average daily historical electricity rates for ERCO Reliability Corporation.

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,280 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: June 30, 2011
Rev: 7

II. Cost Analysis Procedure ("CAP") Formula:

$$\frac{[(PCF \times CCN) - CCO - MP)]}{CCN}$$

A. Definitions (provided by TCEQ)[5]

1. Production Capacity Factor ("PCF")
The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")
CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")
CCO is the cost of comparable equipment or a comparable process without the pollution control.
The standards for calculating CCO are:
[3.1] If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.

[3.2] If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.

[3.3] If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.

[3.4] If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")
Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")
The marketable product value may be calculated in one of two ways:
1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.

2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")
The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor
The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. i Factor
Year One.

9. Interest Rate
10%.

[5] Title 30, Texas Administrative Code, Chapter 17

B. CAP Formulas (provided by TCEQ)

Partial Use Determination = $\frac{[(PCF \times CCN) - CCO - NPVMP)]}{CCN}$

Where:

Production Capacity Factor ("PCF") = $\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$

And where:

NPVMP = $\sum_{i=1}^{n} \frac{MPV - PC}{(1 + \text{Interest Rate})^i}$

C. CAP Formulas for PG Property

Marketable Product Value ("MPV") = Electricity Price ($/MWh) x MWh per Year

Direct Cost of Production ("DCP") = LCOE x kWh per year

LCOE = $\left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \frac{\text{Capital Recovery Factor}}{\text{x}}\right) + \frac{\text{Fixed O&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate}\right)$

Taxpayer: Cottonwood Energy Company, LP
Plant: Cottonwood Energy Center
Plant Summary: 1,280 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: June 30, 2011
Rev: 7

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 1 HRSG

Formula: $\frac{(PCF \times CON) - CCO - NPVMP}{CCN}$

A. Marketable Product Value ("MPV")

Electricity Price	$\frac{\$}{MWh}$	x	$\frac{Plant\ MWh}{Year}$	=	($) MPV	
$35.32	$\frac{\$}{MWh}$	x	808,493 $\frac{MWh}{Year}$	=	$28,557,781	

B. Production Cost ("PC")

Levelized Cost of Energy ("LCOE")	$\frac{\$}{kWh}$	x	$\frac{Plant\ kWh}{Year}$	=	($) PC	
$0.0309	$\frac{\$}{kWh}$	x	808,493,135 $\frac{kWh}{Year}$	=	$24,893,682	

Net Present Value Marketable Product ("NPVMP") Calculation

$$\sum_{t=1}^{n} \frac{(\$)\ MPV - (\$)\ PC}{(1 + Interest\ Rate)^t} = NPVMP\ (\$)$$

$$\sum_{t=1}^{n} \frac{\$28,557,781 - \$24,893,682}{(1 + 10\%)^t} = \$34,641,145 = NPVMP = \$34,641,145$$

* If MP is ≤ 0, then MP = 0.

Taxpayer: Coltonwood Energy Company, LP
Plant: Coltonwood Energy Center
Plant Summary: 1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)
Plant Location: Newton County, Texas
Project: Tier III Cost Analysis Procedure ("CAP") Calculations
Date: June 30, 2011
Rev: 7

C. Production Capacity Factor ("PCF")

Production Capacity of Existing Equipment or Process / Production Capacity of New Equipment or Process = PCF

0 / 292 MW * 31.85% = PCF 1.000

D. Capital Cost New ("CCN")
PC Property = CCN $60,584,465

E. Capital Cost Old ("CCO")
Comparable Technology = CCO $0

Partial Use Determination Calculation

(PCF x CCN) - CCO / CCN - MP = Partial Use Determination %

1.000 x $60,584,465 - $0 / $60,584,465 - $34,541,145 = 42.99%

TCEQ Use Determination Application Section 12, use:	
Use Percent	42.99%
Estimated Dollar Value	$ 60,584,465

Eligible HRSG Costs = $ 26,043,320
(Partial Use Determination % x PC Property Cost)

ATTACHMENT A

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*June 30, 2011*
Rev:	*7*

Levelized Cost of Energy ("LCOE") Model[1]

Formulas

Capital Recovery Factor ("CRF") $= \frac{i \times (1+i)^n}{(1+i)^n - 1}$

$$LCOE = \frac{\left(\text{Capital Cost} \times \text{CRF}\right)}{\text{Hours per Year} \times} + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate}\right)$$

Calculations

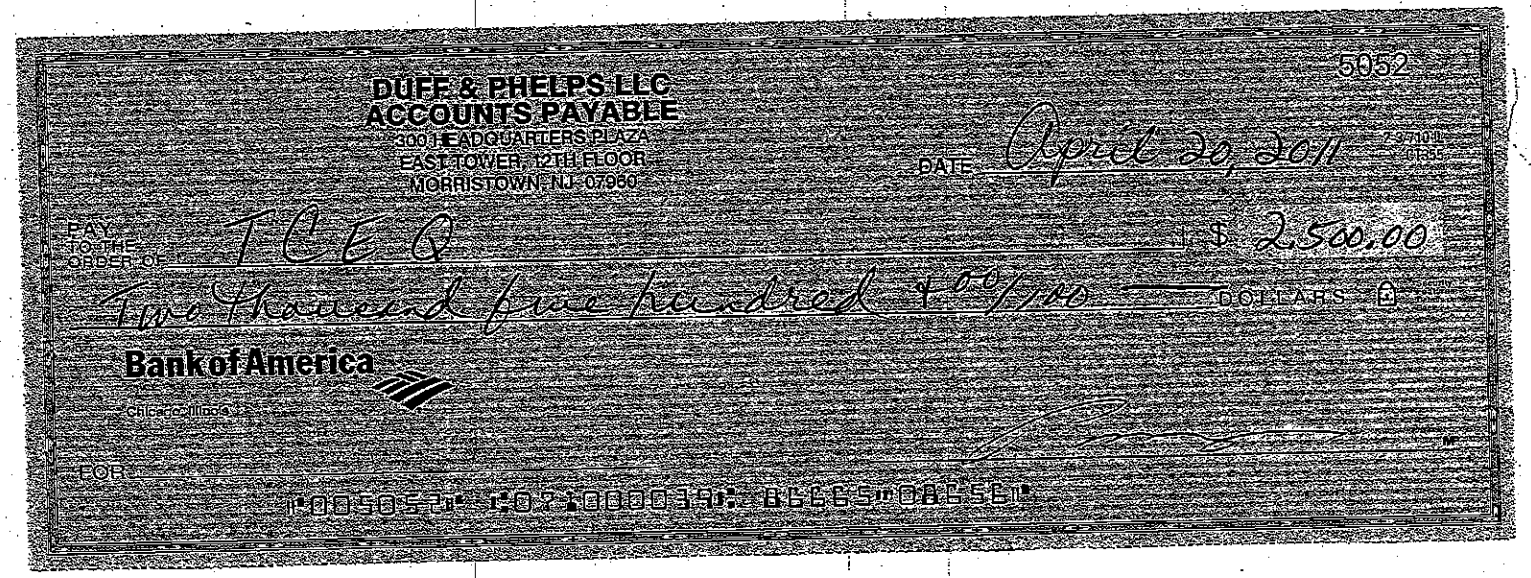
Capital Recovery Factor		10.23%
LCOE ($/kWh)	$	0.03079

[1] http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
$3,664,099	1	1.10	$ 3,330,999
$3,664,099	2	1.21	$ 3,028,181
$3,664,099	3	1.331	$ 2,752,892
$3,664,099	4	1.4641	$ 2,502,629
$3,664,099	5	1.61051	$ 2,275,117
$3,664,099	6	1.771561	$ 2,068,288
$3,664,099	7	1.9487171	$ 1,880,262
$3,664,099	8	2.14358881	$ 1,709,329
$3,664,099	9	2.357947691	$ 1,553,936
$3,664,099	10	2.59374246	$ 1,412,669
$3,664,099	11	2.853116706	$ 1,284,244
$3,664,099	12	3.138428377	$ 1,167,495
$3,664,099	13	3.452271214	$ 1,061,359
$3,664,099	14	3.797498336	$ 964,872
$3,664,099	15	4.177248169	$ 877,156
$3,664,099	16	4.594972986	$ 797,415
$3,664,099	17	5.054470285	$ 724,922
$3,664,099	18	5.559917313	$ 659,020
$3,664,099	19	6.115909045	$ 599,109
$3,664,099	20	6.727499949	$ 544,645
$3,664,099	21	7.400249944	$ 495,132
$3,664,099	22	8.140274939	$ 450,120
$3,664,099	23	8.954302433	$ 409,200
$3,664,099	24	9.849732676	$ 372,000
$3,664,099	25	10.83470594	$ 338,182
$3,664,099	26	11.91817654	$ 307,438
$3,664,099	27	13.10999419	$ 279,489
$3,664,099	28	14.42099361	$ 254,081
$3,664,099	29	15.86309297	$ 230,983
$3,664,099	30	17.44940227	$ 209,984
NPVMP:			$ 34,541,145



DUFF & PHELPS LLC
ACCOUNTS PAYABLE
3001 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07960

5052

DATE April 20, 2011

PAY TO THE ORDER OF FEEQ

$ 2,500.00

Two Thousand five hundred +00/100 DOLLARS

Bank of America

Chicago, Illinois

FOR

Attachment B

DUFF & PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

December 2, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is $2,500. Please find enclosed a check for the $2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 2 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 87801

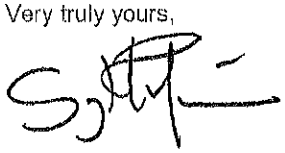
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

T +1 512 671 5560
F +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,



Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?

   Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is '**Yes**', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?

   Corporation ☐ Partnership ☐ Utility ☐
   Sole Proprietor ☐ Limited Partner ☐ Other: **Limited Liability**

2. Size of Company: Number of Employees

   1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
   100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐

3. Business Description: (Briefly describe the type of business or activity at the facility)

   Natural Gas-Fired Electric Power Generation

4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

   Tier I – Fee: $150 ☐ Tier II – Fee: $1,000 ☐ Tier III – Fee: $2,500 ☒

2. Payment Information:

   Check/Money Order/Electronic Payment Receipt Number:
   Payment Type: Check 5119
   Payment Amount: $2,500
   Name on payment: Duff & Phelps
   Total Amount: $2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP
2. Mailing Address: 976 County Road 4213
3. City, State, Zip: Deweyville, TX 77614
4. Customer Number (CN): CN602765687
5. Regulated Entity Number (RN):RN100226109
6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A
7. Is this property/equipment leased from a third party? Yes ☐ No ☒

   If the answer is 'Yes,' please explain: N/A
8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A
2. Mailing Address: N/A
3. City, State, Zip: N/A
4. Customer Number (CN): N/A
5. Regulated Entity Number (RN):N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

   Cottonwood Energy Center
2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-~~2011-48~~ 2012-02

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:

   Unit 1 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems

2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.

3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐

   If the answer is 'Yes,' describe the marketable product: Electricity

4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 2 HRSG

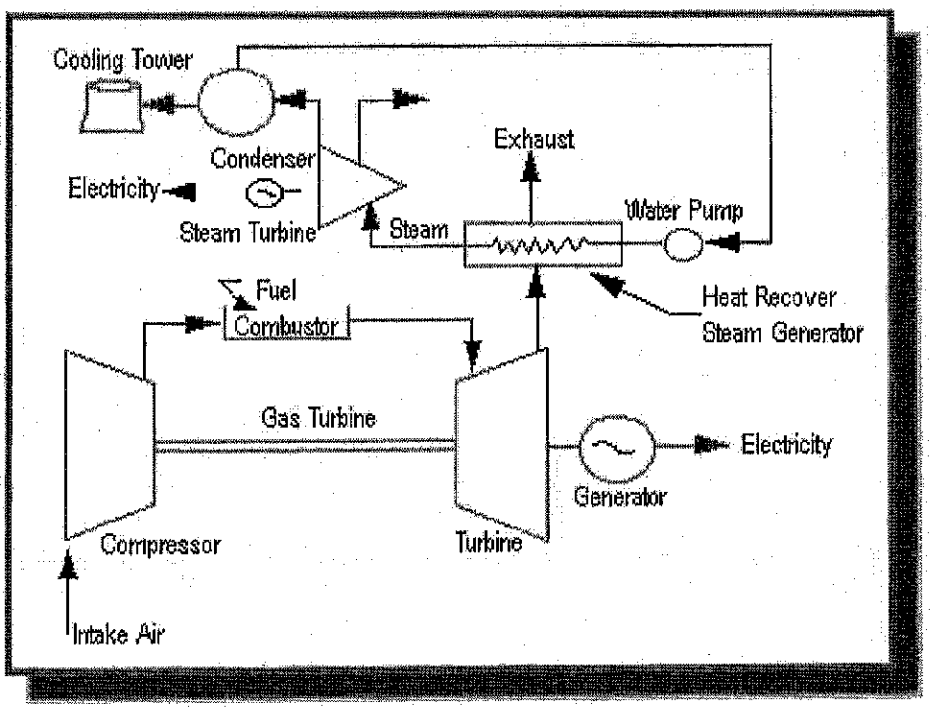
The pollution control property described in this Application is the Unit 2 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 2 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 2 HRSG captures the waste heat of combustion from the Unit 2 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 2 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 2 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the use of the fuel by these CTs alone. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; thus supporting the subject PC Property's inclusion on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

    The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

    As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

    The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	$ 60,584,465
Property:			
Property:			
		Total:	$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

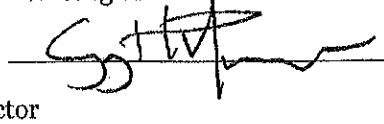
NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim Date: 12/2/2011

Signature: 

Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to $2,000, or a prison term of two to 10 years and a fine of up to $5,000.

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

Source Legend	
C	Calculated Assumption
D&P	D&P VAS Standard/Estimate
CW	Cottonwood Client-Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile

			Source
PC Property			
PC Property Capital Cost	$	60,564,465	CW
PC Property Capital Cost ($/kW)	$	208	C
PC Property Capacity (MW)		292	CW
PC Property Net Annual Generation Capacity (kWh)		805,493,135	C
PC Property Net Annual Generation Capacity (MWh)		805,493	C
Plant Capacity Factor		31.65%	CW
Plant Heat Rate (btu/kWh)		7,503	CW
Plant Heat Rate (MMBTU/kWh)		0.01	C
Capital Cost Old ("CCO")			
Comparable Technology Cost	$	-	
Comparable Technology	$	-	
Design Capacity Factor		0%	
Capacity ("MW")		1	

Conversion Factors

Hours/Year	8,760
kW/MW	1,000
lb/kg	2.20
s/hour	3,600
btu/mmbtu	1,000,000

Economic Assumptions

		Source
Discount Rate	10.0%	D&P
Periods	40	CW
PC Property Fixed O&M Cost ($/kW-yr)	$ 4.53	CW
Fuel Cost ($/MMBTU)	$ 2.80	HH
PC Property Variable Cost ($/MWh)	$ 0.48	CW
PC Property Variable Cost ($/kWh)	$ 0.00	C
SERC Electricity Pricing ($/MWh)[1]	$ 35.32	SNL
Interest Rate	10%	30 TAC

Levelized Cost of Energy ("LCOE") Model Outputs*

Capital Recovery Factor ("CRF")		10.23%
LCOE ($/kWh)	$	0.03079

*See Levelized Cost of Energy model in Attachment A.

[1] Three-year average daily historical electricity rates for SERC Reliability Corporation.

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

II. Cost Analysis Procedure ("CAP")

Formula:

$$\frac{[(PCF \times CCN) - CCO - MP)]}{CCN}$$

A. Definitions (provided by TCEQ)[3]

1. Production Capacity Factor ("PCF")
The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")
CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")
CCO is the cost of comparable equipment or a comparable process without the pollution control.
The standards for calculating CCO are:

3.1 If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.

3.2 If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.

3.3 If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.

3.4 If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")
Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")
The marketable product value may be calculated in one of two ways:
1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.

2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")
The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor
The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. t Factor
Year One.

9. Interest Rate
10%.

[3] Title 30, Texas Administrative Code, Chapter 17

B. CAP Formulas (provided by TCEQ)

Partial Use Determination = $\frac{[(PCF \times CCN) - CCO - NPVMP)]}{CCN}$

Where:

Production Capacity Factor ("PCF") = $\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$

And where:

NPVMP = $\sum_{t=1}^{n} \frac{MPV - PC}{(1 + \text{Interest Rate})^t}$

C. CAP Formulas for PC Property

Marketable Product Value ("MPV") = Electricity Price ($/MWh) x MWh per Year

Direct Cost of Production ("DCP") = LCOE x kWh per year

$$LCOE = \left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \text{Capital Recovery Factor} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor} \times} + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 2 HRSG

Formula: $\frac{(PCF \times CCN) - CCO - NPVMP}{CCN}$

A. Marketable Product Value ("MPV")

Electricity Price						($) MPV
	$\frac{\$}{MWh}$	x	$\frac{Plant\ MWh}{Year}$		=	
$35.32	$\frac{\$}{MWh}$	x	808,493	$\frac{MWh}{Year}$	=	$28,557,781

B. Production Cost ("PC")

Levelized Cost of Energy ("LCOE")						($) PC
	$\frac{\$}{kWh}$	x	$\frac{Plant\ kWh}{Year}$		=	
$0.0308	$\frac{\$}{kWh}$	x	808,493,135	$\frac{kWh}{Year}$	=	$24,893,682

Net Present Value Marketable Product ("NPVMP") Calculation

$$\sum_{t=1}^{n} \frac{(\$)\ MPV - (\$)\ PC}{(1 + Interest\ Rate)^t} = \boxed{NPVMP\ (\$)}$$

$$\sum_{t=1}^{n} \frac{\$28,557,781 - \$24,893,682}{(1 + 10\%)^t} = \$34,541,145 = \boxed{\begin{matrix}NPVMP\\ \$34,541,145\end{matrix}}$$

* If MP is ≤ 0, then MP = 0.

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

C. Production Capacity Factor ("PCF")

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \text{PCF}$$

$$\frac{0}{292 \text{ MW} * 31.65\%} = \text{PCF}\ 1.000$$

D. Capital Cost New ("CCN")
PC Property = CCN $60,584,465

E. Capital Cost Old ("CCO")
Comparable Technology = CCO $0

TCEQ Use Determination Application Section 12, use:		
Use Percent		42.99%
Estimated Dollar Value	$	60,584,465

Partial Use Determination Calculation

$$\frac{(\text{PCF} \times \text{CCN}) - \text{CCO}}{\text{CCN}} - \text{MP} = \text{Partial Use Determination \%}$$

$$\frac{1.000 \times \$60,584,465 - \$0}{\$60,584,465} - \$34,541,145 = 42.99\%$$

Eligible HRSG Costs = $ 26,043,320
(Partial Use Determination % x PC Property Cost)

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

Levelized Cost of Energy ("LCOE") Model[1]

Formulas

Capital Recovery Factor ("CRF") $= \frac{i \times (1+i)^n}{(1+i)^n - 1}$

$$LCOE = \left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \text{CRF} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Calculations

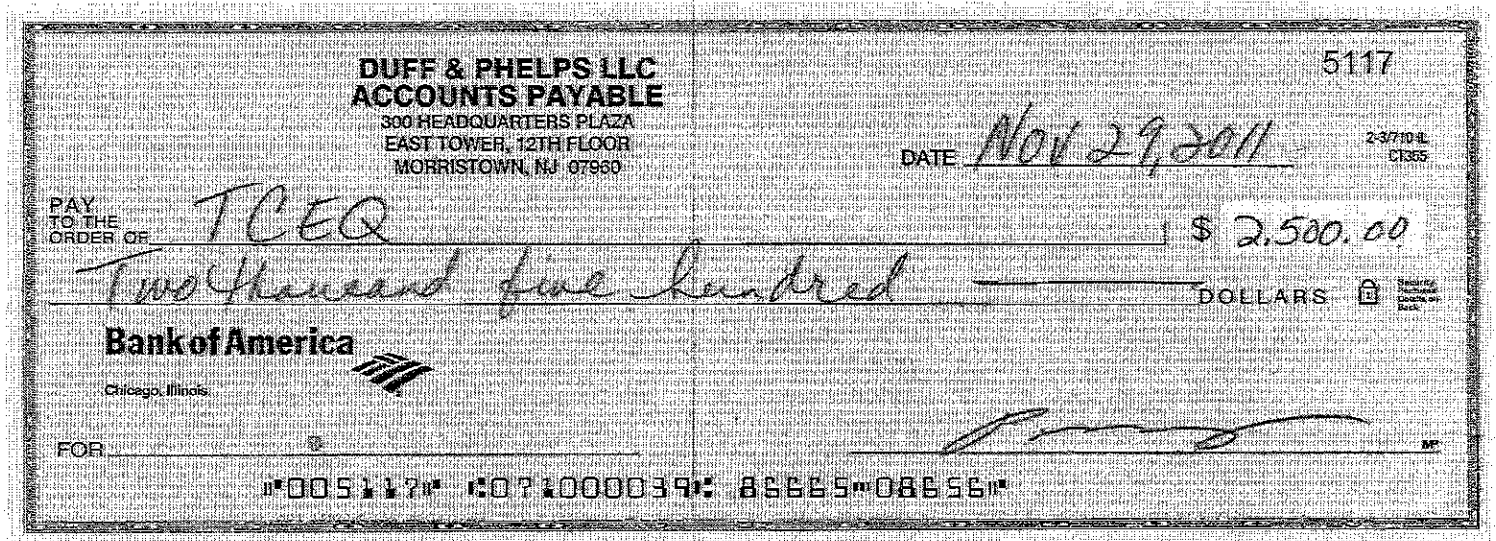
Capital Recovery Factor		10.23%
LCOE ($/kWh)	$	0.03079

[1] http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
$3,664,099	1	1.10	$ 3,330,999
$3,664,099	2	1.21	$ 3,028,181
$3,664,099	3	1.331	$ 2,752,892
$3,664,099	4	1.4641	$ 2,502,629
$3,664,099	5	1.61051	$ 2,275,117
$3,664,099	6	1.771561	$ 2,068,288
$3,664,099	7	1.9487171	$ 1,880,262
$3,664,099	8	2.14358881	$ 1,709,329
$3,664,099	9	2.357947691	$ 1,553,936
$3,664,099	10	2.59374246	$ 1,412,669
$3,664,099	11	2.853116706	$ 1,284,244
$3,664,099	12	3.138428377	$ 1,167,495
$3,664,099	13	3.452271214	$ 1,061,359
$3,664,099	14	3.797498336	$ 964,872
$3,664,099	15	4.177248169	$ 877,156
$3,664,099	16	4.594972986	$ 797,415
$3,664,099	17	5.054470285	$ 724,922
$3,664,099	18	5.559917313	$ 659,020
$3,664,099	19	6.115909045	$ 599,109
$3,664,099	20	6.727499949	$ 544,645
$3,664,099	21	7.400249944	$ 495,132
$3,664,099	22	8.140274939	$ 450,120
$3,664,099	23	8.954302433	$ 409,200
$3,664,099	24	9.849732676	$ 372,000
$3,664,099	25	10.83470594	$ 338,182
$3,664,099	26	11.91817654	$ 307,438
$3,664,099	27	13.10999419	$ 279,489
$3,664,099	28	14.42099361	$ 254,081
$3,664,099	29	15.86309297	$ 230,983
$3,664,099	30	17.44940227	$ 209,984
NPVMP:			**$ 34,541,145**



DUFF & PHELPS LLC
ACCOUNTS PAYABLE
300 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07960

5117

DATE Nov 29, 2011

2-3/710-L
CT355

PAY TO THE ORDER OF TCEQ

$ 2,500.00

Two Thousand five hundred DOLLARS

Bank of America
Chicago, Illinois

FOR

⑈005117⑈ ⑆071000039⑆ 8666508656⑈

Attachment C

DUFF & PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

December 2, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is $2,500. Please find enclosed a check for the $2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 3 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 87801

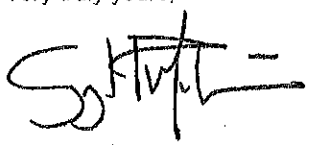
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

T +1 512 671 6580
F +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,



Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?

   Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is '**Yes**', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?

   Corporation ☐ Limited Partner ☐ Other: **Limited Liability Corporation**
   Sole Proprietor ☐ Utility ☐
   Partnership ☐

2. Size of Company: Number of Employees

   1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
   100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐

3. Business Description: (Briefly describe the type of business or activity at the facility)

   Natural Gas-Fired Electric Power Generation

4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

   Tier I – Fee: $150 ☐ Tier II – Fee: $1,000 ☐ Tier III – Fee: $2,500 ☒

2. Payment Information:

   Check/Money Order/Electronic Payment Receipt Number:
   Payment Type: Check 5118
   Payment Amount: $2,500
   Name on payment: Duff & Phelps
   Total Amount: $2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP
2. Mailing Address: 976 County Road 4213
3. City, State, Zip: Deweyville, TX 77614
4. Customer Number (CN): CN602765687
5. Regulated Entity Number (RN):RN100226109
6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A
7. Is this property/equipment leased from a third party? Yes ☐ No ☒

   If the answer is 'Yes,' please explain: N/A
8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A
2. Mailing Address: N/A
3. City, State, Zip: N/A
4. Customer Number (CN): N/A
5. Regulated Entity Number (RN):N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

   Cottonwood Energy Center
2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2012-03

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:

   Unit 3 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems

2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.

3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐

   If the answer is 'Yes,' describe the marketable product: Electricity

4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 3 HRSG

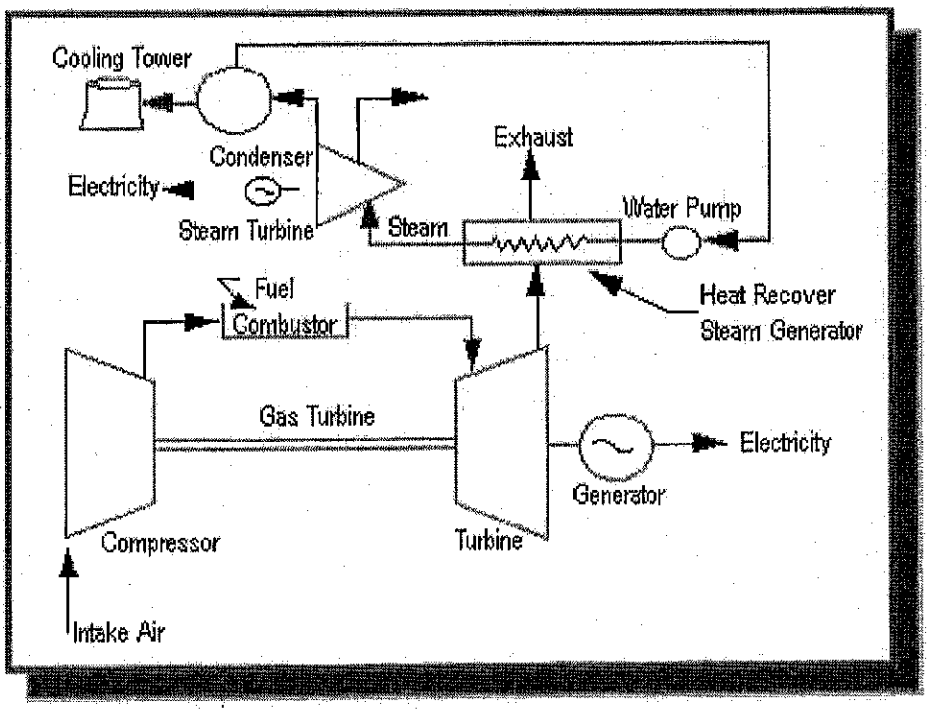
The pollution control property described in this Application is the Unit 3 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 3 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 3 HRSG captures the waste heat of combustion from the Unit 3 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 3 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 3 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the use of the fuel by these CTs alone. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; thus supporting the subject PC Property's inclusion on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

    The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

    As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

    The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	$ 60,584,465
Property:			
Property:			
		Total:	$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim Date: 12/2/2011

Signature: _____

Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to $2,000, or a prison term of two to 10 years and a fine of up to $5,000.

ATTACHMENT 8

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,280 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

Source Legend:	
C	Calculated Assumption
D&P	D&P VAS Standard/Estimate
CW	Cottonwood Client-Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile

PC Property			Source
PC Property Capital Cost	$	60,584,465	CW
PC Property Capital Cost ($/kW)	$	208	C
PC Property Capacity (MW)		292	CW
PC Property Net Annual Generation Capacity (kWh)		858,483,135	C
PC Property Net Annual Generation Capacity (MWh)		858,483	C
Plant Capacity Factor		31.65%	CW
Plant Heat Rate (btu/kWh)		7,503	CW
Plant Heat Rate (MMBTU/kWh)		0.01	C
Capital Cost Old ("CCO")			
Comparable Technology Cost	$	-	
Comparable Technology	$	-	
Design Capacity Factor		0%	
Capacity (MW)		1	

Conversion Factors

Hours/Year	8,760
kW/MW	1,000
lb/kg	2.20
s/hour	3,600
btu/mmbtu	1,000,000

Economic Assumptions

			Source
Discount Rate		10.0%	D&P
Periods		40	CW
PC Property Fixed O&M Cost ($/kW-yr)	$	4.53	CW
Fuel Cost ($/MMBTU)	$	2.80	HH
PC Property Variable Cost ($/MWh)	$	0.46	CW
PC Property Variable Cost ($/kWh)	$	0.00	C
SERC Electricity Pricing ($/MWh)[1]	$	35.32	SNL
Interest Rate		10%	30 TAC

Levelized Cost of Energy ("LCOE") Model Outputs*

Capital Recovery Factor ("CRF")		10.23%
LCOE ($/kWh)	$	0.03079

*See Levelized Cost of Energy, model in Attachment A.

[1] Three-year average daily historical electricity rates for SERC Reliability Corporation.

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,266 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

II. Cost Analysis Procedure ("CAP")

Formula:

$$\frac{[(PCF \times CCN) - CCO - MP]}{CCN}$$

A. Definitions (provided by TCEQ)[1]

1. Production Capacity Factor ("PCF")
The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")
CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")
CCO is the cost of comparable equipment or a comparable process without the pollution control.
The standards for calculating CCO are:

3.1 If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.

3.2 If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.

3.3 If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.

3.4 If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")
Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")
The marketable product value may be calculated in one of two ways:
1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.

2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")
The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor
The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. t Factor
Year One.

9. Interest Rate
10%.

[1] Title 30, Texas Administrative Code Chapter 17

B. CAP Formulas (provided by TCEQ)

Partial Use Determination = $\frac{[(PCF \times CCN) - CCO - NPVMP)]}{CCN}$

Where:

Production Capacity Factor ("PCF") = $\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$

And where:

NPVMP = $\sum_{t=1}^{n} \frac{MPV - PC}{(1 + \text{Interest Rate})^t}$

C. CAP Formulas for PC Property

Marketable Product Value ("MPV") = Electricity Price ($/MWh) x MWh per Year

Direct Cost of Production ("DCP") = LCOE x kWh per year

$$LCOE = \frac{\left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \text{Capital Recovery Factor}\right) + \text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate}\right)$$

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 3 HRSG

Formula: $\frac{(PCF \times CCN) - CCO - NPVMP}{CCN}$

A. Marketable Product Value ("MPV")

Electricity Price	$\frac{\$}{MWh}$	x	$\frac{Plant\ MWh}{Year}$		=	($) MPV
$35.32	$\frac{\$}{MWh}$	x	808,493	$\frac{MWh}{Year}$	=	$28,557,781

B. Production Cost ("PC")

Levelized Cost of Energy ("LCOE")	$\frac{\$}{kWh}$	x	$\frac{Plant\ kWh}{Year}$		=	($) PC
$0.0308	$\frac{\$}{kWh}$	x	808,493,135	$\frac{kWh}{Year}$	=	$24,893,682

Net Present Value Marketable Product ("NPVMP") Calculation

$$\sum_{t=1}^{n} \frac{(\$)\ MPV - (\$)\ PC}{(1 + Interest\ Rate)^t} = \boxed{NPVMP\ (\$)}$$

$$\sum_{t=1}^{n} \frac{\$28,557,781 - \$24,893,682}{(1 + 10\%)^t} = \$34,541,145 = \boxed{\begin{matrix}NPVMP\\ \$34,541,145\end{matrix}}$$

* If MP is ≤ 0, then MP = 0.

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

C. Production Capacity Factor ("PCF")

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \text{PCF}$$

$$\frac{0}{292 \text{ MW} * 31.65\%} = \text{PCF} = 1.000$$

D. Capital Cost New ("CCN")
PC Property

CCN = $60,584,465

E. Capital Cost Old ("CCO")
Comparable Technology

CCO = $0

TCEQ Use Determination Application Section 12 use:		
Partial Use Percent		42.99%
Estimated Dollar Value	$	60,584,465

Partial Use Determination Calculation

$$\frac{(\text{PCF} \times \text{CCN}) - \text{CCO} - \text{MP}}{\text{CCN}} = \text{Partial Use Determination \%}$$

$$\frac{1.000 \times \$60,584,465 - \$0 - \$34,541,145}{\$60,584,465} = 42.99\%$$

Eligible HRSG Costs (Partial Use Determination % x PC Property Cost) = $ 26,043,320

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

Levelized Cost of Energy ("LCOE") Model[1]

Formulas

Capital Recovery Factor ("CRF") $= \frac{i \times (1+i)^n}{(1+i)^n - 1}$

$$LCOE = \frac{\left(\text{Capital Cost} \times \text{CRF}\right) + \text{Fixed O\&M Costs}}{\text{Hours per Year} \times \text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate}\right)$$

Calculations

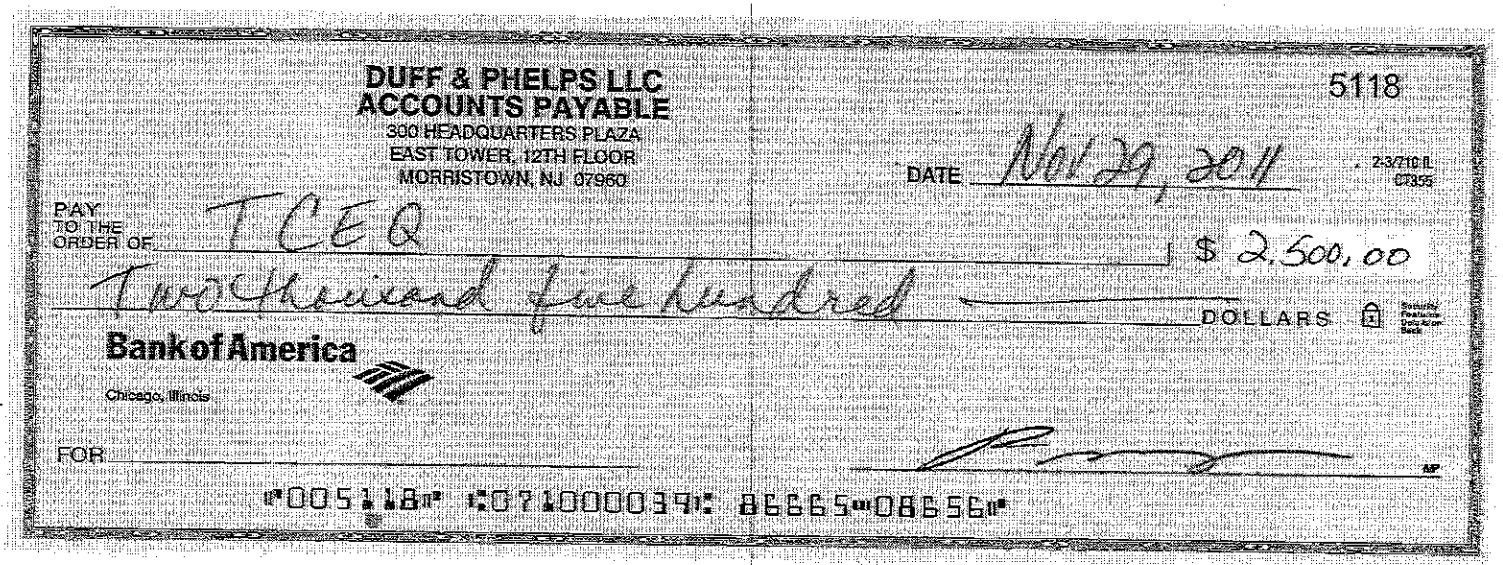
Capital Recovery Factor		10.23%
LCOE ($/kWh)	$	0.03079

[1] http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
$3,664,099	1	1.10	$ 3,330,999
$3,664,099	2	1.21	$ 3,028,181
$3,664,099	3	1.331	$ 2,752,892
$3,664,099	4	1.4641	$ 2,502,629
$3,664,099	5	1.61051	$ 2,275,117
$3,664,099	6	1.771561	$ 2,068,288
$3,664,099	7	1.9487171	$ 1,880,262
$3,664,099	8	2.14358881	$ 1,709,329
$3,664,099	9	2.357947691	$ 1,553,936
$3,664,099	10	2.59374246	$ 1,412,669
$3,664,099	11	2.853116706	$ 1,284,244
$3,664,099	12	3.138428377	$ 1,167,495
$3,664,099	13	3.452271214	$ 1,061,359
$3,664,099	14	3.797498336	$ 964,872
$3,664,099	15	4.177248169	$ 877,156
$3,664,099	16	4.594972986	$ 797,415
$3,664,099	17	5.054470285	$ 724,922
$3,664,099	18	5.559917313	$ 659,020
$3,664,099	19	6.115909045	$ 599,109
$3,664,099	20	6.727499949	$ 544,645
$3,664,099	21	7.400249944	$ 495,132
$3,664,099	22	8.140274939	$ 450,120
$3,664,099	23	8.954302433	$ 409,200
$3,664,099	24	9.849732676	$ 372,000
$3,664,099	25	10.83470594	$ 338,182
$3,664,099	26	11.91817654	$ 307,438
$3,664,099	27	13.10999419	$ 279,489
$3,664,099	28	14.42099361	$ 254,081
$3,664,099	29	15.86309297	$ 230,983
$3,664,099	30	17.44940227	$ 209,984
NPVMP:			**$ 34,541,145**



DUFF & PHELPS LLC
ACCOUNTS PAYABLE
300 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07960

5118

DATE Nov 29, 2011

2-3/710 IL
07356

PAY TO THE ORDER OF TCEQ

$ 2,500,00

Two thousand five hundred DOLLARS

Bank of America
Chicago, Illinois

FOR

⑈005118⑈ ⑆071000039⑆ 8666508656⑈

Attachment D

DUFF&PHELPS

TCEQ Cashier's Office - MC-214
Building A
12100 Park 35 Circle
Austin, TX 78753

December 2, 2011

Re: Application for Use Determination for Air Pollution Control Property Located at Cottonwood Energy Center in Newton County, Texas

Enclosed please find one application (the "Application") for property tax exemption for Air Pollution Control Property located at Cottonwood Energy Center (the "Facility") in Newton County, Texas. A copy of the Application has been provided for the appraisal district.

Pursuant to Title 30 of Chapter 17 of the Texas Administrative Code, the Application has been prepared using the Texas Commission on Environmental Quality ("TCEQ") Application for Use Determination for Pollution Control Property. The enclosed application is a Tier III Application. Submission of this Application is required as a process step in the TCEQ's pollution control certification process for tax exemption of certain assets used in pollution control capacities within the Facility. As outlined by the application instructions, the fee for this Tier III Application is $2,600. Please find enclosed a check for the $2,500 Tier III Application Fee.

The Application can be summarized as follows:

Property	Description	Estimated Cost
Tier III	Unit 4 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	$ 26,043,320

Please send one copy of the completed property tax exemption Use Determination to the following address:

Mr. Greg Maxim
Duff & Phelps LLC
919 Congress Avenue, Suite 1450
Austin, TX 87801

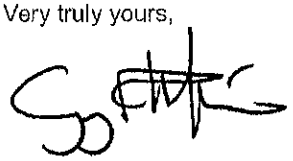
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, TX 78701

T +1 512 671 5580
F +1 512 351 7911

gregory.maxim@duffandphelps.com
www.duffandphelps.com

If you have any questions regarding the Application or the information supplied within the Application, please contact me, Greg Maxim, Director, Duff & Phelps LLC, at (512) 671-5580 or by e-mail at gregory.maxim@duffandphelps.com.

Very truly yours,



Gregory Maxim
Director
Specialty Tax

Enclosures

cc: Ms. Kathryn Tronsberg Macciocca (Duff & Phelps, LLC)

Texas Commission on Environmental Quality

Use Determination for Pollution Control Property Application

A person seeking a use determination must complete this application form. For assistance in completing the application form please refer to the *Instructions for Use Determination for Pollution Control Property Application Form TCEQ-00611*, as well as the rules governing the Tax Relief Program in Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Information relating to completing this application form is also available in the TCEQ regulatory guidance document, *Property-Tax Exemptions for Pollution Control Property, RG-461*. For additional assistance, please call the Tax Relief Program at 512-239-4900.

You must supply information for each field of this application form unless otherwise noted.

Section 1. Eligibility

1. Is the property/equipment subject to any lease, lease-to-own agreement, or environmental incentive grant? Yes ☐ No ☒
2. Is the property/equipment used solely to manufacture or produce a product or provide a service that prevents, monitors, controls, or reduces air, water or land pollution?

   Yes ☐ No ☒
3. Was the property/equipment acquired, constructed, installed, or replaced before January 1, 1994? Yes ☐ No ☒

If the answer to any of these questions is '**Yes**', then the property/equipment is not eligible for a tax exemption under this program.

Section 2. General Information

1. What is the type of ownership of this facility?

   Corporation ☐ Limited Partner ☐ Other: **Limited Liability Corporation**
   Sole Proprietor ☐ Utility ☐
   Partnership ☐

2. Size of Company: Number of Employees

   1 to 99 ☒ 500 to 999 ☐ 2,000 to 4,999 ☐
   100 to 499 ☐ 1,000 to 1,999 ☐ 5,000 or more ☐

3. Business Description: (Briefly describe the type of business or activity at the facility)

   Natural Gas-Fired Electric Power Generation

4. Provide the North American Industry Classification System (NAICS) six-digit code for this facility. **221122 - Electric Power Generation, fossil fuel**

Section 3. Type of Application and Fee

1. Select only one:

   Tier I – Fee: $150 ☐ Tier II – Fee: $1,000 ☐ Tier III – Fee: $2,500 ☒

2. Payment Information:

   Check/Money Order/Electronic Payment Receipt Number:
   Payment Type: Check 5119
   Payment Amount: $2,500
   Name on payment: Duff & Phelps
   Total Amount: $2,500

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

Section 4. Property/Equipment Owner Information

1. Company Name of Owner: Cottonwood Energy Company LP
2. Mailing Address: 976 County Road 4213
3. City, State, Zip: Deweyville, TX 77614
4. Customer Number (CN): CN602765687
5. Regulated Entity Number (RN):RN100226109
6. Is this property/equipment owned by the CN listed in Question 4? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A
7. Is this property/equipment leased from a third party? Yes ☐ No ☒

   If the answer is 'Yes,' please explain: N/A
8. Is this property/equipment operated by the RN listed in Question 5? Yes ☒ No ☐

   If the answer is 'No,' please explain: N/A

Section 5. Name of Property/Equipment Operator (If different from Owner)

1. Company Name: N/A
2. Mailing Address: N/A
3. City, State, Zip: N/A
4. Customer Number (CN): N/A
5. Regulated Entity Number (RN):N/A

Section 6. Physical Location of Property/Equipment

1. Name of Facility or Unit where the property/equipment is physically located:

   Cottonwood Energy Center
2. Type of Mfg. Process or Service: **Natural Gas-Fired Electric Power Generation**

3. Street Address: 976 County Road 4213
4. City, State, Zip: Deweyville, TX 77614

Section 7. Appraisal District with Taxing Authority

1. Appraisal District: Newton County
2. District Account Number(s): 9900015-0805153

Section 8. Contact Name

1. Company Name: Duff & Phelps, LLC
2. First Name of Contact: Greg
3. Last Name of Contact: Maxim
4. Salutation: Mr. ☒ Mrs. ☐ Ms. ☐ Dr. ☐ Other:
5. Title: Director
6. Mailing Address: 919 Congress Avenue, Suite 1450
7. City, State, Zip: Austin, TX 78701
8. Phone Number/Fax Number: (P) 512-671-5580; (F) 512-351-7911
9. Email Address: Gregory.maxim@duffandphelps.com
10. Tracking Number (optional): CC-2012-04

Section 9. Property/Equipment Description, Applicable Rule, and Environmental Benefit

For each piece, or each category, of pollution control property/equipment for which a use determination is being sought, answer the following questions.

Attach additional response sheets to the application for each piece of integrated pollution control property/equipment if a use determination is being sought for more than one (1) piece.

General Information

1. Name the property/equipment:

   Unit 4 Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems

2. Is the property/equipment used 100% as pollution control equipment? Yes ☐ No ☒

   If the answer is 'Yes,' explain how it was determined that the equipment is used 100% for pollution control: N/A. See Calculation of Percentage of pollution control Property in attached Cost Analysis Procedure ("CAP") Model.

3. Does the property/equipment generate a Marketable Product? Yes ☒ No ☐

   If the answer is 'Yes,' describe the marketable product: Electricity

4. What is the appropriate Tier I Table or Expedited Review List number? ERL #8
5. Is the property/equipment integrated pollution control equipment? Yes ☒ No ☐

If the answer is 'No,' separate applications must be filed for each piece of property/equipment.

6. List applicable permit number(s) for the property/equipment: Title V Operating Permit O2338

Incremental Cost Difference

7. Is the Tier I Table percentage based on the incremental cost difference? Yes ☐ No ☐ N/A ☒

If the answer is 'Yes,' answer the following questions:

8. What is the cost of the new piece of property/equipment? N/A
9. What is the cost of the comparable property/equipment? N/A
10. How was the value of the comparable property/equipment calculated? N/A

Property/Equipment Description

11. Describe the property/equipment. (What is it? Where is it? How is it used?)

Background: Cottonwood Energy Center

The Cottonwood Energy Center (the "Facility") is a natural gas-fired, combined cycle power generating facility located in Deweyville, Newton County, Texas. Four GE 7-FA combustion turbines are routed to four Foster Wheeler heat recovery steam generators ("HRSGs"), which provide steam to four Alstom steam turbine-generator sets. The Facility began commercial operation in December 2003. It has a base load capacity of 1,260 MW. The Facility serves the SERC Reliability Corporation region.

Pollution Control Property Description – Cottonwood Unit 4 HRSG

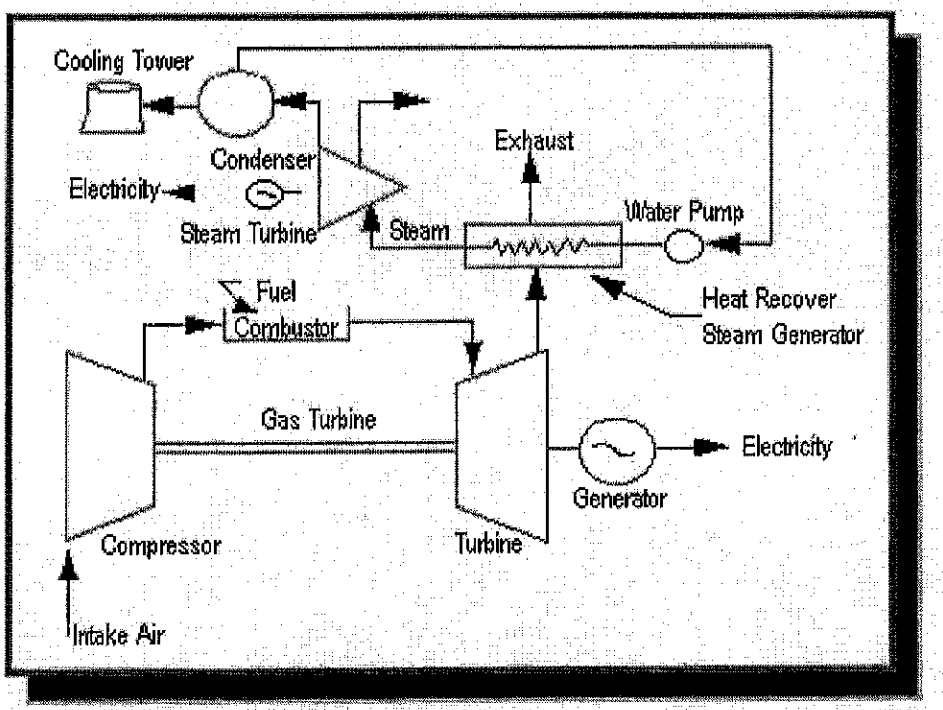
The pollution control property described in this Application is the Unit 4 HRSG and dedicated ancillary system (the "PC Property") installations.

Cottonwood Unit 4 HRSG

The Facility consists of a combined-cycle gas turbine power plant with four (4) gas Combustion Turbines ("CTs") each equipped with HRSGs and dedicated ancillary systems necessary to capture heat from the CTs' exhaust and convert it into electrical power. The Unit 4 HRSG captures the waste heat of combustion from the Unit 4 CT exhaust gas and utilizes this waste heat to produce steam, which in turn powers a steam turbine-generator set to produce electric power at the Facility in addition to the electric power generated by the CT alone.

The Facility gains both production and pollution control benefits from the subject PC Property. First, the use of this waste heat of combustion by the Unit 4 HRSG creates a thermal efficiency benefit for the Facility. Specifically, the use of waste heat in the Unit 4 CT exhaust gas results in the conversion of approximately 50% of the chemical energy of the natural gas utilized at the Facility into electricity (HHV basis), a gain over the use of the fuel by these CTs alone. Secondly, due to this efficiency gain, the Facility is able to generate fewer emissions (particularly NO_x emissions) than a traditional power generation facility utilizing a single thermodynamic cycle; thus supporting the subject PC Property's inclusion on the Expedited Review List.

The Figure below is representative of a simplified combined-cycle plant process flow.



Please see the Cost Analysis Procedure ("CAP") Model attached for the calculation of the percentage of the subject pollution control property eligible for property tax exemption.

Applicable Rule

12. What adopted environmental rule or regulation is being met by the construction or installation of the property/equipment? The citation must be to the subsection level.

    The PC Property was installed to meet the requirements of 40 CFR Part 60.44da(a) "Standards for nitrogen oxides ("NOx") for Electric Utility Steam generating units for New Source Performance Standards ("NSPS")".

    As well, the PC Property allows emissions to meet or exceed Best Available Control Technology emission limitations established in Federal Operating Permit #O2338. Per 30 Texas Administrative Code ("TAC") §122.143(4), the permit holder must comply with all terms and conditions codified in the permit and any provisional terms and conditions required to be included with the permit.

Environmental Benefit

13. What is the anticipated environmental benefit related to the construction or installation of the property/equipment?

    The PC Property reduces the formation of and/or controls the emission of NO_x and other air emissions associated with the combustion of natural gas used in combined cycle power generation at the Facility.

Section 10. Process Flow Diagram (Optional)

Attach documentation to the application showing a Process Flow Diagram for the property/equipment.

Please see the simplified Process Flow Diagram above for a representation of the combined-cycle power plant.

Section 11. Partial-Use Percentage Calculation

This section must be completed for all Tier III applications. Attach documentation to the application showing the calculations used to determine the partial-use percentage for the property/equipment.

Please see the attachment to this application for the Cost Analysis Procedure ("CAP") Calculations.

Section 12. Property Categories and Costs

List each piece of property/equipment of integrated pollution control property/equipment for which a use determination is being sought.

Property/Equipment Name	Tier 1 Table No. or Expedited Review List No.	Use Percent	Estimated Dollar Value
Land:			
Property: Heat Recovery Steam Generator ("HRSG") and Dedicated Ancillary Systems	N/A	42.99%	$ 60,584,465
Property:			
Property:			
		Total:	$ 26,043,320

Attach additional response sheets to the application if more than three (3) pieces.

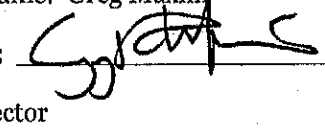
NOTE: Separate applications must be filed for each piece of nonintegrated pollution control property/equipment.

Section 13. Certification Signature

Must be signed by owner or designated representative.

By signing this application, I certify that I am duly authorized to submit this application form to the TCEQ and that the information supplied here is true and accurate to the best of my knowledge and belief.

Printed Name: Greg Maxim Date: 12/2/2011

Signature: 

Title: Director

Company Name: Duff & Phelps, LLC

Under Texas Penal Code 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to $2,000, or a prison term of two to 10 years and a fine of up to $5,000.

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

Source Legend	
C	Calculated Assumption
D&P	D&P VAS Standard/Estimate
CW	Cottonwood Client-Provided Data
HH	Henry Hub Natural Gas Pricing
30 TAC	30 TAC Chapter 17

I. Assumptions

Plant Design Profile			
PC Property			*Source*
PC Property Capital Cost	$	60,584,495	CW
PC Property Capital Cost ($/kW)	$	208	C
PC Property Capacity (MW)		292	CW
PC Property Net Annual Generation Capacity (kWh)		808,493,135	C
PC Property Net Annual Generation Capacity (MWh)		808,493	C
Plant Capacity Factor		31.65%	CW
Plant Heat Rate (btu/kWh)		7,503	CW
Plant Heat Rate (MMBTU/kWh)		0.01	C
Capital Cost Old ("CCO")			
Comparable Technology Cost	$	-	
Comparable Technology	$	-	
Design Capacity Factor		0%	
Capacity ("MW")		1	

Conversion Factors	
Hours/Year	8,760
kW/MW	1,000
lb/kg	2.20
s/hour	3,600
btu/mmbtu	1,000,000

Economic Assumptions			
			Source
Discount Rate		10.0%	D&P
Periods		40	CW
PC Property Fixed O&M Cost ($/kW-yr)	$	4.53	CW
Fuel Cost ($/MMBTU)	$	2.80	HH
PC Property Variable Cost ($/MWh)	$	0.48	CW
PC Property Variable Cost ($/MWh)	$	0.00	C
SERC Electricity Pricing ($/MWh)[1]	$	35.32	SNL
Interest Rate		10%	30 TAC

Levelized Cost of Energy ("LCOE") Model Outputs*		
Capital Recovery Factor ("CRF")		10.23%
LCOE ($/kWh)	$	0.03079

*See Levelized Cost of Energy model in Attachment A.

[1] Three-year average daily historical electricity rates for SERC Reliability Corporation.

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

B. Cost Analysis Procedure ("CAP")

Formula:

$$\frac{[(PCF \times CCN) - CCO - MP)]}{CCN}$$

A. Definitions (provided by TCEQ)[3]

1. Production Capacity Factor ("PCF")
The ratio of the capacity of the existing equipment or process to the capacity of the new equipment or process.

2. Capital Cost New ("CCN")
CCN is the estimated total capital cost of the new equipment or process.

3. Capital Cost Old ("CCO")
CCO is the cost of comparable equipment or a comparable process without the pollution control.
The standards for calculating CCO are:

3.1 If comparable equipment without the pollution control feature is on the market in the U.S., then use the average market price of the most recent generation of technology must be used.

3.2 If the conditions in variable 3.1 do not apply and the company is replacing an existing unit that already has received a positive use determination, the company shall use the CCO from the application for the previous use determination.

3.3 If the conditions in variable 3.1 and 3.2 do not apply and the company is replacing an existing unit, then the company shall convert the original cost of the unit to today's dollars by using a published industry specific standard. If the production capacity of the new equipment or process is lower than the production capacity of the old equipment or process CCO is divided by the PCF to adjust CCO to reflect the same capacity as CCN.

3.4 If the conditions in variables 3.1, 3.2 and 3.3 do not apply, and the company can obtain an estimate to manufacture the alternative equipment without the pollution control feature, then an average estimated cost to manufacture the unit must be used. The comparable unit must be the most recent generation of technology. A copy of the estimate must be provided with the worksheet including the specific source of the information.

4. Marketable Product ("MP")
Anything produced or recovered using pollution control property that is sold as a product, is accumulated for later use, or is used as raw material in a manufacturing process. Marketable product includes, but is not limited to, anything recovered or produced using the pollution control property sold, traded, accumulated for later use, or used in a manufacturing process (including at a different facility). Marketable product does not include any emission credits or emission allowances that result from installation of the pollution control property.

5. Marketable Product Value ("MPV")
The marketable product value may be calculated in one of two ways:
1. The retail value of the product produced by the equipment for one year periods. Typically, the most recent three-year average price of the material as sold on the market should be used in the calculation. If the price varies from state-to-state, the applicant shall calculate an average and explain how the figures were determined.

2. If the material is used as an intermediate material in a production process, then the value assigned to the material for internal accounting purposes may be used. It is the responsibility of the applicant to show that the internally assigned value is comparable to the value assigned by other similar producers of the product.

6. Direct Costs of Production ("DCP")
The costs directly attributed to the production of the product, including raw materials, storage, transportation, and personnel, but excluding non-cash costs, such as overhead and depreciation.

7. n Factor
The estimated useful life in years of the equipment that is being evaluated for a use determination.

8. t Factor
Year One.

9. Interest Rate
10%.

[3] Title 30, Texas Administrative Code, Chapter 17

B. CAP Formulas (provided by TCEQ)

Partial Use Determination = $\frac{[(PCF \times CCN) - CCO - NPVMP)]}{CCN}$

Where:

Production Capacity Factor ("PCF") = $\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}}$

And where:

NPVMP = $\sum_{t=1}^{n} \frac{MPV - PC}{(1 + \text{Interest Rate})^{t}}$

C. CAP Formulas for PC Property

Marketable Product Value ("MPV") = Electricity Price ($/MWh) x MWh per Year

Direct Cost of Production ("DCP") = LCOE x kWh per year

LCOE = $\left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \frac{\text{Capital Recovery Factor}}{x}\right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate}\right)$

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

III. Cost Analysis Procedure ("CAP") Calculations for Cottonwood Unit 4 HRSG

Formula: $\frac{(PCF \times CCN) - CCO - NPVMP}{CCN}$

A. Marketable Product Value ("MPV")

Electricity Price	$\frac{\$}{MWh}$	x	Plant MWh / Year	=	($) MPV
$35.32	$\frac{\$}{MWh}$	x	808,493 $\frac{MWh}{Year}$	=	$28,557,781

B. Production Cost ("PC")

Levelized Cost of Energy ("LCOE")	$\frac{\$}{kWh}$	x	Plant kWh / Year	=	($) PC
$0.0308	$\frac{\$}{kWh}$	x	808,493,135 $\frac{kWh}{Year}$	=	$24,893,682

Net Present Value Marketable Product ("NPVMP") Calculation

$$\sum_{t=1}^{n} \frac{(\$)\ MPV - (\$)\ PC}{(1 + Interest\ Rate)^t} = NPVMP\ (\$)$$

$$\sum_{t=1}^{n} \frac{\$28,557,781 - \$24,893,682}{(1 + 10\%)^t} = \$34,541,145 = \text{NPVMP } \$34,541,145$$

* If MP is ≤ 0, then MP = 0.

Taxpayer: *Cottonwood Energy Company, LP*
Plant: *Cottonwood Energy Center*
Plant Summary: *1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location: *Newton County, Texas*
Project: *Tier III Cost Analysis Procedure ("CAP") Calculations*
Date: *December 2, 2011*
Rev: *0*

C. Production Capacity Factor ("PCF")

$$\frac{\text{Production Capacity of Existing Equipment or Process}}{\text{Production Capacity of New Equipment or Process}} = \text{PCF}$$

$$\frac{0}{292 \text{ MW} * 31.65\%} = \text{PCF} = 1.000$$

D. Capital Cost New ("CCN")
PC Property = CCN = $60,584,465

E. Capital Cost Old ("CCO")
Comparable Technology = CCO = $0

TCEQ Use Determination Application Section 12, use:		
Use Percent		42.99%
Estimated Dollar Value	$	60,584,465

Partial Use Determination Calculation

$$\frac{(\text{PCF} \times \text{CCN}) - \text{CCO}}{\text{CCN}} - \text{MP} = \text{Partial Use Determination \%}$$

$$\frac{1.000 \times \$60,584,465 - \$0}{\$60,584,465} - \$34,541,145 = 42.99\%$$

Eligible HRSG Costs (Partial Use Determination % x PC Property Cost) = $ 26,043,320

Taxpayer:	*Cottonwood Energy Company, LP*
Plant:	*Cottonwood Energy Center*
Plant Summary:	*1,260 MW 4x4 Configuration Combined Cycle Power Plant (2003)*
Plant Location:	*Newton County, Texas*
Project:	*Tier III Cost Analysis Procedure ("CAP") Calculations*
Date:	*December 2, 2011*
Rev:	*0*

Levelized Cost of Energy ("LCOE") Model[1]

Formulas

Capital Recovery Factor ("CRF") $= \frac{i \times (1 + i)^n}{(1 + i)^n - 1}$

$$LCOE = \left(\frac{\text{Capital Cost}}{\text{Hours per Year}} \times \text{CRF} \right) + \frac{\text{Fixed O\&M Costs}}{\text{Capacity Factor}} + \left(\text{Fuel Cost} \times \text{Heat Rate} \right)$$

Calculations

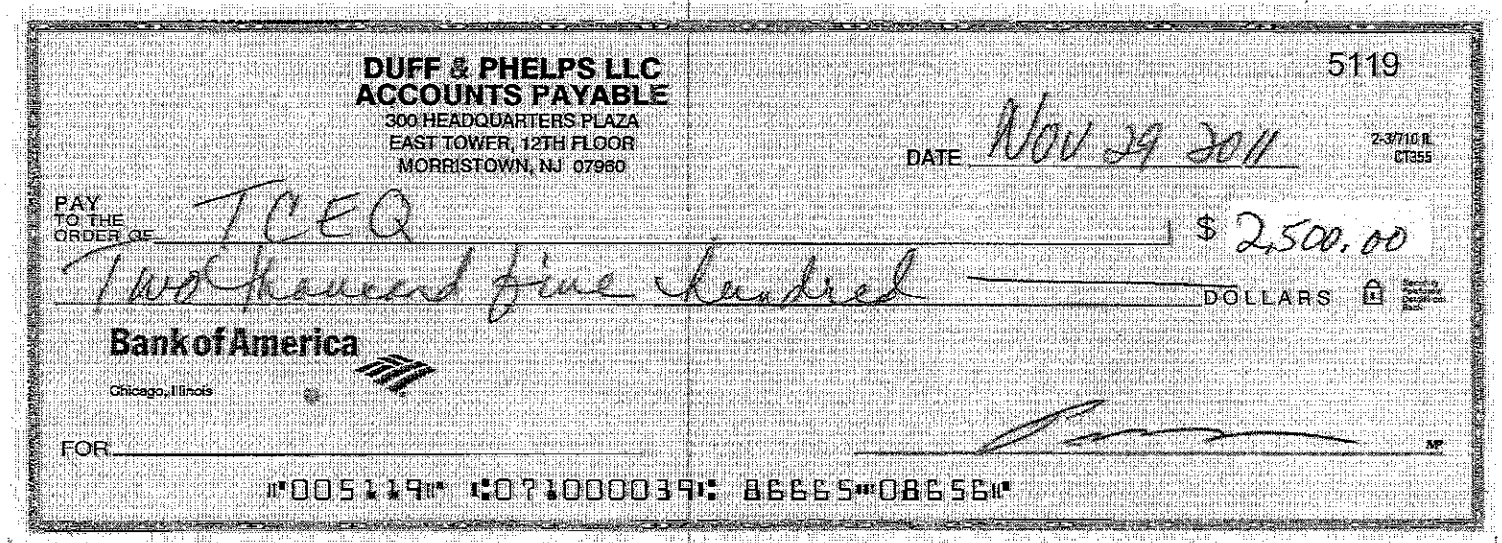
Capital Recovery Factor	10.23%
LCOE ($/kWh)	$ 0.03079

[1] http://www.nrel.gov/analysis/lcoe_documentation.html

Note: The Levelized Cost of Energy is a calculation developed by the United States Department of Energy's National Renewable Energy Lab to determine the cost of generating energy (electricity) using the design or performance criteria for a specific power generation unit. The website above gives a more detailed description of the model and its development.

Electricity - PV Calculations

Difference	Period	Interest Rate	PV - Period
$3,664,099	1	1.10	$ 3,330,999
$3,664,099	2	1.21	$ 3,028,181
$3,664,099	3	1.331	$ 2,752,892
$3,664,099	4	1.4641	$ 2,502,629
$3,664,099	5	1.61051	$ 2,275,117
$3,664,099	6	1.771561	$ 2,068,288
$3,664,099	7	1.9487171	$ 1,880,262
$3,664,099	8	2.14358881	$ 1,709,329
$3,664,099	9	2.357947691	$ 1,553,936
$3,664,099	10	2.59374246	$ 1,412,669
$3,664,099	11	2.853116706	$ 1,284,244
$3,664,099	12	3.138428377	$ 1,167,495
$3,664,099	13	3.452271214	$ 1,061,359
$3,664,099	14	3.797498336	$ 964,872
$3,664,099	15	4.177248169	$ 877,156
$3,664,099	16	4.594972986	$ 797,415
$3,664,099	17	5.054470285	$ 724,922
$3,664,099	18	5.559917313	$ 659,020
$3,664,099	19	6.115909045	$ 599,109
$3,664,099	20	6.727499949	$ 544,645
$3,664,099	21	7.400249944	$ 495,132
$3,664,099	22	8.140274939	$ 450,120
$3,664,099	23	8.954302433	$ 409,200
$3,664,099	24	9.849732676	$ 372,000
$3,664,099	25	10.83470594	$ 338,182
$3,664,099	26	11.91817654	$ 307,438
$3,664,099	27	13.10999419	$ 279,489
$3,664,099	28	14.42099361	$ 254,081
$3,664,099	29	15.86309297	$ 230,983
$3,664,099	30	17.44940227	$ 209,984
NPVMP:			**$ 34,541,145**



DUFF & PHELPS LLC
ACCOUNTS PAYABLE
300 HEADQUARTERS PLAZA
EAST TOWER, 12TH FLOOR
MORRISTOWN, NJ 07960

5119

DATE Nov 29 2011

2-3/710 IL
CT355

PAY TO THE ORDER OF TCEQ

$ 2,500.00

Two thousand five hundred DOLLARS

Bank of America
Chicago, Illinois

FOR

⑈005119⑈ ⑆071000039⑆ 8666508656⑈

Attachment E

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 10, 2012

Mr. Greg Maxim
Director
Duff and Phelps, LLC
919 Congress Ave Ste 1450
Austin, Texas 78701

Re: Notice of Negative Use Determination
Cottonwood Energy Company, LP
Cottonwood Energy Center
976 County Road 4213
Deweyville (Newton County)
Regulated Entity Number: RN100226109
Customer Reference Number: CN602765687
Application Number: 15505; Tracking Number: CC-2011-48

Dear Mr. Maxim:

This letter responds to Cottonwood Energy Company, LP's Application for Use Determination, received July 5, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Cottonwood Energy Center.

The TCEQ has completed the review for application #15505 and has issued a Negative Use Determination for the property in accordance with Title 30 Texas Administrative Code (TAC) §17.4 and §17.6. Heat recovery steam generators and associated dedicated ancillary equipment are used solely for production; therefore, are not eligible for a positive use determination.

Please be advised that a Negative Use Determination may be appealed. The appeal must be filed with the TCEQ Chief Clerk within 20 days after the receipt of this letter in accordance with 30 TAC §17.25.

If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at ronald.hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Chance Goodin, Team Leader
Stationary Source Programs
Air Quality Division

CG/RH

cc: Chief Appraiser, Newton County Appraisal District, 109 Court Street, Newton, Texas 75966

Attachment F

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 10, 2012

Mr. Greg Maxim
Director
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, Texas 78701

Re: Notice of Negative Use Determination
Cottonwood Energy Compnay, LP
Cottonwood Energy Center
976 County Road 4213
Deweyville (Newton County)
Regulated Entity Number: RN100226109
Customer Reference Number: CN602765687
Application Number: 16412
Tracking Number: CC-2012-02

Dear Mr. Maxim:

This letter responds to Cottonwood Energy Compnay, LP's Application for Use Determination, received December 2, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Cottonwood Energy Center.

The TCEQ has completed the review for application #16412 and has issued a Negative Use Determination for the property in accordance with Title 30 Texas Administrative Code (TAC) §17.4. The justification for the negative use determination is provided below.

Heat recovery steam generators and associated dedicated ancillary equipment are used solely for production; therefore, are not eligible for a positive use determination.

Please be advised that a Negative Use Determination may be appealed. The appeal must be filed with the TCEQ Chief Clerk within 20 days after the receipt of this letter in accordance with 30 TAC §17.25.

If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at Ronald.Hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Chance Goodin, Team Leader
Stationary Sources Team
Air Quality Division

CG/RH

Enclosure

cc: Chief Appraiser, Newton County Appraisal District, 109 Court St, Newton, Texas 75966

Attachment G

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 10, 2012

Mr. Greg Maxim
Director
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, Texas 78701

Re: Notice of Negative Use Determination
Cottonwood Energy Compnay, LP
Cottonwood Energy Center
976 County Road 4213
Deweyville (Newton County)
Regulated Entity Number: RN100226109
Customer Reference Number: CN602765687
Application Number: 16411
Tracking Number: CC-2012-03

Dear Mr. Maxim:

This letter responds to Cottonwood Energy Compnay, LP's Application for Use Determination, received December 2, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Cottonwood Energy Center.

The TCEQ has completed the review for application #16411 and has issued a Negative Use Determination for the property in accordance with Title 30 Texas Administrative Code (TAC) §17.4. The justification for the negative use determination is provided below.

Heat recovery steam generators and associated dedicated ancillary equipment are used solely for production; therefore, are not eligible for a positive use determination.

Please be advised that a Negative Use Determination may be appealed. The appeal must be filed with the TCEQ Chief Clerk within 20 days after the receipt of this letter in accordance with 30 TAC §17.25.

If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at Ronald.Hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Chance Goodin, Team Leader
Stationary Sources Team
Air Quality Division

CG/RH

Enclosure

cc: Chief Appraiser, Newton County Appraisal District, 109 Court St, Newton, Texas 75966

Attachment H

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

July 10, 2012

Mr. Greg Maxim
Director
Duff & Phelps, LLC
919 Congress Avenue
Suite 1450
Austin, Texas 78701

Re: Notice of Negative Use Determination
Cottonwood Energy Compnay, LP
Cottonwood Energy Center
976 County Road 4213
Deweyville (Newton County)
Regulated Entity Number: RN100226109
Customer Reference Number: CN602765687
Application Number: 16410
Tracking Number: CC-2012-04

Dear Mr. Maxim:

This letter responds to Cottonwood Energy Compnay, LP's Application for Use Determination, received December 2, 2011, pursuant to the Texas Commission on Environmental Quality's (TCEQ) Tax Relief for Pollution Control Property Program for the Cottonwood Energy Center.

The TCEQ has completed the review for application #16410 and has issued a Negative Use Determination for the property in accordance with Title 30 Texas Administrative Code (TAC) §17.4. The justification for the negative use determination is provided below.

Heat recovery steam generators and associated dedicated ancillary equipment are used solely for production; therefore, are not eligible for a positive use determination.

Please be advised that a Negative Use Determination may be appealed. The appeal must be filed with the TCEQ Chief Clerk within 20 days after the receipt of this letter in accordance with 30 TAC §17.25.

If you have questions regarding this letter or need further assistance, please contact Ronald Hatlett of the Tax Relief for Pollution Control Property Program by telephone at (512) 239-6348, by e-mail at Ronald.Hatlett@tceq.texas.gov, or write to the Texas Commission on Environmental Quality, Tax Relief for Pollution Control Property Program, MC-110, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

Chance Goodin, Team Leader
Stationary Sources Team
Air Quality Division

CG/RH

Enclosure

cc: Chief Appraiser, Newton County Appraisal District, 109 Court St, Newton, Texas 75966

Attachment I

Pre-Repowering Efficiency and Air Emissions Unit 1

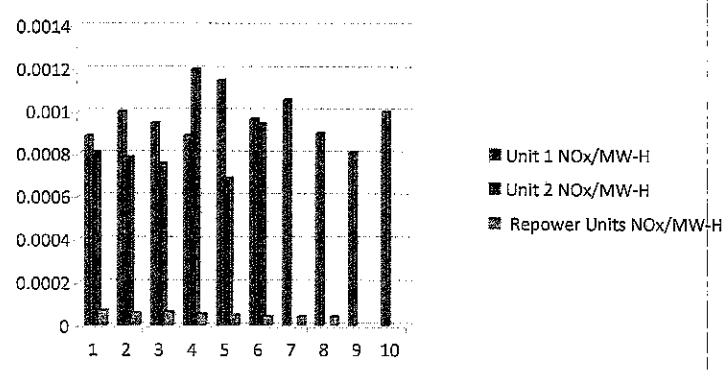
FACILITY_NAME	UNITID	OP_YEAR	HEAT_INPUT	NOX_RATE lbs/MMBTU	NOX_MASS TONs	Gross Load (MW-H)	CO2 Tons	Operating Hours	NOX TONS/MW-HR
Barney M. Davis	1	2003	9,882,095	0.14	814.4	923,389	611,010.3	8,398	0.0009
Barney M. Davis	1	2004	1,365,091	0.1	115.4	115,931	81,133.3	1,273	0.0010
Barney M. Davis	1	2005	4,018,371	0.13	343.1	363,700	238,809.6	3,423	0.0009
Barney M. Davis	1	2006	3,861,536	0.12	319.8	361,211	229,487.0	2,820	0.0009
Barney M. Davis	1	2007	1,815,633	0.15	198.3	173,553	107,904.3	1,658	0.0011
Barney M. Davis	1	2008	4,749,542	0.13	420.8	436,979	282,257.8	3,852	0.0010
Barney M. Davis	1	2009	3,199,412	0.15	332.1	315,615	190,145.3	2,112	0.0011
Barney M. Davis	1	2010	660,763	0.1	48.3	53,988	39,255.9	843	0.0009
Barney M. Davis	1	2011	1,906,567	0.1	131	162,795	113,303.8	1,761	0.0008
Barney M. Davis	1	2012	1,674,769	0.012	138.1	138,581	99,528.2	1,494	0.0010

Pre-Repowering Efficiency and Air Emissions Unit 2

FACILITY_NAME	UNITID	OP_YEAR	HEAT_INPUT	NOX_RATE lbs/MMBTU	NOX_MASS TONs	Gross Load (MW-H)	CO2 Tons	Operating Hours	NOX TONS/MW-HR
Barney M. Davis	2	2003	2,094,717	0.1	152.7	189,000	131,053.6	1,606	0.0008
Barney M. Davis	2	2004	11,922,584	0.12	837.6	1,070,886	708,543.8	7,750	0.0008
Barney M. Davis	2	2005	6,256,894	0.11	388.7	516,358	371,836.8	5,580	0.0008
Barney M. Davis	2	2006	2,965,995	0.15	280.5	233,671	176,265.6	1,763	0.0012
Barney M. Davis	2	2007	1,339,322	0.09	82.8	120,870	79,592.2	1,060	0.0007
Barney M. Davis	2	2008	3,419,274	0.15	294.4	312,553	203,201.2	2,679	0.0009

Post-Repowering Efficiency and Air Emissions BMD Units 3, 4 & NB Units 8, 9

FACILITY_NAME	UNITID	OP_YEAR	HEAT_INPUT	NOX_RATE lbs/MMBTU	NOX_MASS TONs	Gross Load (MW-H)	CO2 Tons	Operating Hours	NOX TONS/MW-HR
Barney M. Davis	3	2011	8,264,568	0.03	73.3	1,064,646	491,149.8	5637	0.0001
Barney M. Davis	3	2012	5,289,883	0.02	40.1	687,398	314,371.3	3524	0.0001
Barney M. Davis	4	2011	8,092,698	0.03	68.9	1,081,929	480,942.4	5742	0.0001
Barney M. Davis	4	2012	4,943,162	0.02	36.3	663,495	293,764.0	3425	0.0001
Nueces Bay	8	2011	7,989,948	0.02	52.7	1,093,549	474,830.6	5692	0.0000
Nueces Bay	8	2012	5,011,986	0.02	30	687,430	297,856.4	3517	0.0000
Nueces Bay	9	2011	7,978,245	0.02	45.5	1,092,722	474,132.6	5558	0.0000
Nueces Bay	9	2012	5,117,020	0.02	29.5	698,703	304,095.0	3545	0.0000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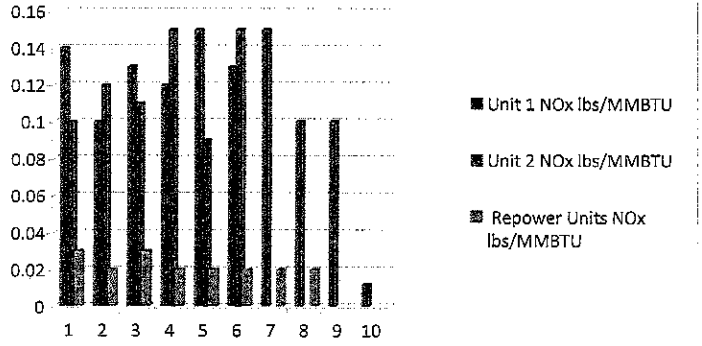
1 2 3 4 5 6 7 8 9 10
Unit 1 NOx/MW-H
Unit 2 NOx/MW-H
Repower Units NOx/MW-H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1 2 3 4 5 6 7 8 9 10
Unit 1 NOx lbs/MMBTU
Unit 2 NOx lbs/MMBTU
Repower Units NOx lbs/MMBTU